

World news

Business summary

Indian
says he
passed
secrets

A New Delhi businessman at the centre of India's spy scandal claimed that he had been passing secret defence and political information to France, East Germany and Poland in an operation he had conducted for 25 years.

His admission, which considerably widens the scope and significance of India's biggest spy scandal, was given in closed court shortly after two senior civil servants, whose office staff had leaked documents to the businessman, left their ministries on permanent leave.

The civil servants are M. C. Sarin, production secretary in the Ministry of Defence, and A. S. Bajaj, an additional secretary (equivalent to deputy secretary) in the Ministry of Finance, Page 16

Solidarity warning

A leading Solidarity underground publication has warned that the organisation will oppose any International Monetary Fund programmes for Poland which could lead to a sharp drop in the standard of living. Page 2

Nuclear protest

West Germany's environmental and anti-nuclear movements declared an all-out campaign against the country's first nuclear reprocessing plant at Wackersdorf, close to the Czech frontier in eastern Bavaria. Preliminary work on it will begin in a few months time. Page 2

Defence review

The U.S. Government said it was reviewing its defence co-operation with New Zealand because of that country's refusal to allow a visit by an American warship.

Gibraltar poll

Gibraltar's population is overwhelmingly opposed to the reversion of sovereignty in the talks which Britain and Spain start today in Geneva, according to an opinion poll. Page 2

Swiss blockade

Swiss truck drivers blockaded border crossings with France, West Germany, Austria and Italy, almost bringing commercial traffic to a standstill.

Yugoslavs jailed

Three Yugoslav intellectuals were jailed for terms from one to two years after being found guilty of spreading propaganda hostile to the state. Page 2

Manila protest

More than 15 people were injured when Philippine Government defence forces backed by riot police fought pitched battles with hundreds of stone-throwing squatters in Manila.

Mengele mock trial

Jewish twins and dwarfs who served as experiment subjects for Nazi concentration camp doctor Josef Mengele began testifying at a mock trial in Jerusalem intended to document the horror of his genetic experiments.

Pope's peace plea

Pope John Paul called on Peruvian Maoist guerrillas of the Sendero Luminoso group to lay down their arms.

Israeli killed

Israeli army launched a manhunt for Palestinian guerrillas who shot dead an Israeli soldier in the centre of El-Bireh, north of Jerusalem on the occupied West Bank. Page 4

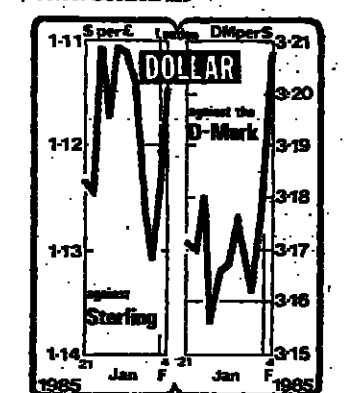
Nato forces head

U.S. President Ronald Reagan appointed Gen Bernard Rogers to another two-year term as commander of the Nato forces.

KHD to
buy out
engine
supplier

KLÖCKNER-HUMMOLDT-DIESEL, the West German diesel engine and tractor manufacturer, has bought control of MWM, diesel engine division of Knorr Bremsa and a leading supplier of engines to Renault and Ford, two of KHD's rivals in the European tractor market. Page 17

WALL STREET: The Dow Jones industrial average closed up 12.36 at 1,290.08. Section III

Reagan abandons
hope of balancing
budget this term

BY STEWART FLEMING IN WASHINGTON

PRESIDENT Ronald Reagan conceded yesterday that he would not be able to achieve his goal of a balanced budget in his second term of office, but claimed that the budget he sent to Congress was a significant step towards reducing the federal deficit.

"The budget I propose... would reduce the deficit projected for 1986 to \$144bn - still a far cry from our goal of a balanced budget, but a significant step in the right direction and a 42 per cent reduction from the current services level projected for that year," he said in his budget message.

Mr Reagan's budget proposal, although already discounted as a blueprint which Congress will enact in detail, is nevertheless seen as a bold statement of the political priorities the President is establishing for his second term of office - more radical in some ways than the budget he submitted at the beginning of his first term.

In order to achieve a reduction in government spending outside the defence, social security and debt service categories, which account for about two thirds of total budget outlays - all of which are rising sharply - Mr Reagan is asking Con-

Budget component	Historic trend			President's budget		
	1970	1980	1985	1985	1986	1990
Share of GNP (%)						
Social security	4.1	7.2	7.7	7.4	7.1	7.0
Safety net for poor	0.8	1.8	1.8	1.6	1.5	1.4
Other domestic programmes	4.6	6.0	4.6	3.3	2.5	2.1
Defence	8.3	5.1	6.4	6.6	7.1	7.4
National interest programmes	1.0	0.8	1.0	0.8	0.7	0.7
Net interest	1.5	2.0	2.4	2.4	2.4	2.4
Total spending	20.2	22.9	24.8	23.2	22.2	20.9

gress to endorse large cuts in a wide range of government spending programmes which benefit the middle classes and powerful business interests.

His detailed proposals include the elimination of federal subsidies to state and local governments, of federal mass transit grants, of the Small Business Administration and cuts in federal workers' pay, in farm subsidies and in automatic cost-of-living increases to retiring military and civil service employees, for example.

The Export Import Bank's direct lending to promote U.S. business exports is also being stopped, and the budget message says the federal Government is not budgeting for future replenishments of the fi-

nances of multilateral development banks such as the International Development Association (IDA) beyond honouring existing commitments.

The politically bold attack on some of the large federal spending programmes which benefit the middle class would probably have gone further had the President not promised to leave unscathed the \$300bn request for social security spending. Mr Reagan has already hinted that he might not resist a congressional decision to limit social security, however.

Even supporters of the President's four-year, \$1 trillion (million) Continued on Page 16

Details, Page 6

Hawke launches attack
on EEC farm subsidies

BY QUENTIN PEEL IN BRUSSELS

MR. BOB HAWKE, the Australian Prime Minister, yesterday called on the EEC not to sell cheap beef in Asian and Pacific markets, and demanded a cut in subsidised sales at other European farm products in the region.

He launched a vigorous attack on the disruptive external effects of the Community's Common Agricultural Policy (CAP) after several hours of talks with members of the new European Commission, headed by Mr Jacques Delors.

Mr Hawke, visiting Brussels for the first time since he became Prime Minister in 1983, also attacked the growing trade protectionism among the big industrialised nations, which he blamed for the failure of U.S. economic growth to permeate through to the rest of the international economy.

He called for "clear signals" from the new European Commission that it would continue the process of reform of the CAP, hold down the level of farm-price support in the Community, restrain subsidised farm exports, and "seek a co-operative approach" to the prob-

lems of agricultural trade, particularly in sugar and dairy products.

Mr Hawke said he believed that some agreement by the Commission not to sell beef at a discount in Pacific markets might emerge from the detailed discussions to be held today by Mr John Kerr, the Australian Minister for Primary Industries, with Mr Frans Andriessen, the European Farm Commissioner, and Mr Willy de Clercq, the External Trade Commissioner.

The EEC is already facing a dispute with Canada over exports of beef from Europe's current surplus production, after the Canadian imposition of import quotas in December.

Mr Hawke told a meeting of the Centre for European Policy Studies in Brussels that subsidised exports from the EEC posed a threat to Australian markets in other parts of the world - markets which the Community itself had urged Australia to exploit.

"As Community policies have led it to emerge as the world's largest exporter of dairy products and beef, and a very large wheat and sugar

exporter, as well as a major source of subsidised wine, we face erosion of our hard-won market opportunities elsewhere, and severe hardship for our farming community," he said.

Mr Hawke warned of the "seemingly inexorable" growth of trade protectionism, and a "disturbing change" in its nature, with a shift from agreed rules to "arbitrary administrative regulation."

He said there had been a continued erosion of the authority of the General Agreement on Tariffs and Trade and a further weakening - to the point of enfeeblement - of the most-favoured-nation principle.

He called for any new round of multi-lateral trade negotiations to include priority for resolving outstanding issues, such as the special treatment of agriculture, tariff escalation against processed raw materials and barriers against the exports of the newly industrialised countries of the Pacific region.

Mr Hawke flies on to Washington tomorrow for talks which he said would include reconsideration of the question of U.S. MX missile tests in Australian waters.

Volvo buys stake in Pharmacia

BY DAVID BROWN IN STOCKHOLM

VOLVO, the Swedish motor vehicle and industrial group, said yesterday that it had acquired a big shareholding in Pharmacia, the drugs and biotechnology concern.

Volvo is now Pharmacia's single largest shareholder, with 32m shares. That corresponds to 28.6 per cent of the voting rights and 6.4 per cent of the equity.

The motor group is understood to have paid more than SKr 650m (\$71.8m), a premium of about 10 per cent over the market price, to four shareholders associated with Pharmacia's original family owners. In Stockholm yesterday Volvo shares advanced SKr 18 to SKr 300, while Pharmacia shares rose by SKr 5 to SKr 225.

Volvo said yesterday that the acquisition was part of a long-term move into the sector. It planned further efforts to "expand the expertise of Swedish biotechnology, im-

prove co-ordination in the sector and strengthen its international competitiveness."

Volvo plans to invite other, unnamed companies to take over some of its Pharmacia shareholding as part of a sectorial "consortium."

Pointing to Volvo's existing interests in several Swedish concerns in this field, Mr Pehr Gyllenhammar, chairman, characterised the Pharmacia deal as a "natural step." Mr Erik Danielsson, Pharmacia's managing director, welcomed Volvo's entry as a "very positive" complement to his group's strategic planning.

The Pharmacia acquisition could open up several opportunities for co-operation in research, development and marketing with Volvo's existing holdings.

These include:

● A 34 per cent stake in Senesons (which in turn controls the Leo/

Ferrosan pharmaceutical company and the Gambio medical equipment group).

● A 22 per cent stake in the biotechnology and sugar company Carbo.

● At least 15 per cent in KabiGen, one of the world's leading producers of human growth hormone.

Pharmacia is expected to announce 1984 sales of about SKr 2.8bn and has forecast earnings of as much as SKr 640m. The group has had particular success in the ophthalmology, allergy and diagnostic fields, and is a leading manufacturer of separation equipment used in the biotechnology industry.

Despite a number of earlier attempts at diversification, the bulk of Volvo's SKr 7.6bn pre-tax earnings last year was generated by the car and truck divisions.

Lex, Page 16

\$ continues to
climb despite
intervention

BY MAX WILKINSON, ECONOMICS CORRESPONDENT, IN LONDON

THE DOLLAR continued to climb to record levels yesterday in spite of moderate concerted intervention by European central banks.

Most of the dollar's progress was at the expense of the D-Mark. Sterling withstood the pressure relatively well, perhaps with some modest help from the Bank of England.

The dollar's surge to close at DM 3.212 in London, up 325 pfennigs from Friday's London close, continued progress started in New York on Friday. Dealers attributed it to the firming of U.S. interest rates and to the view that the budget measures announced by President Ronald Reagan yesterday would do little to cut the budget deficit in the near-term.

The dollar's Bank of England index against a trade-weighted basket of currencies closed in London at 148.1, up 0.9 per cent from Friday's closing figure. Although sterling lost 1.3 cents in London against the dollar, closing at \$1.114, it gained against the D-Mark so that the sterling index (against a trade-weighted basket of currencies) fell only 0.4 of a point to 71.3 in London.

Dealers said, however, that sterling might still be vulnerable to the dollar if there was any adverse news on the domestic monetary front, or evidence of a further weakening of oil prices.

London financial markets showed that they thought the dollar's strength made a cut in banks' base rates from the present 14 per cent less likely in the short term. Prices of equities and gilt-edged (government) stocks eased while the three-month interbank rate rose ¼ of a point from Friday's level to just over 13¼ per cent.

Dr Fritz Leutwiler, former president of the Bank for International Settlements, the central bankers' bank in Basle, said that he believed that the dollar would remain "basically strong" although it might begin to decline this year.

The leading central banks appeared to be selling dollars in a concerted move yesterday as part of the recent agreement of the Group of Five industrial powers to act together against dollar speculation.

The West German Bundesbank caused a hectic flurry in the markets when it announced that it was intervening in support of the D-Mark.

Dealers said, however, that steady demand for dollars resumed when it became evident that the intervention was in support of the D-Mark.

Continued on Page 16

Market worries "exaggerated", Page 8; Lex, Page 16; Money markets, Page 37; Stock markets, Section III

Record number of
UK miners return

BY PHILIP BASSETT AND PETER RIDDELL IN LONDON

THE number of miners abandoning the UK coal strike yesterday rose to a record for any day since the dispute began. The National Coal Board (NCB) claimed that 2,318 men had returned to work.

This was more than 100 higher than the previous record in November. It followed last week's failure to re-establish talks between the board and the National Union of Mineworkers (NUM) to try to settle the dispute, now nearly 11 months old. The board claimed that 43 per cent of Britain's 187,000 miners were back at work.

Leaders of the NUM and of the opposition Labour Party tried yesterday to keep alive prospects of fresh negotiations. After a House of Commons debate on the strike, which had been demanded by Labour, Mr Neil Kinnock, the leader of the Opposition, urged "negotiations without preconditions in order to settle this dispute."

Mr Arthur Scargill, president of the NUM, claimed that a letter from the NCB had "given some encouragement to the union to believe that there is a possibility of negotiations with the coal board."

In response, the NCB warned against "raising false hopes" of talks and insisted that the NUM would have to indicate firmly in writing that it had shifted on the main issue of its opposition to pit closures on economic grounds before any negotiations could begin.

Senior NCB officials believe that Mr Scargill is trying to maintain the prospect of new talks to stem the drift back to work.

Continued on Page 16

Returns to work and Commons debate, Page 8

Bonn under
attack as
jobless
total jumps
to 2.61m

By Peter Bruce in Bonn

WEST GERMANY'S ruling centre-right coalition was bitterly criticised by the opposition Social Democrats (SPD) and Greens over its employment policies yesterday, after the Federal Labour Office in Nuremberg announced that total unemployment had climbed 12.7 per cent in January to a record 2.61m, or 10.5 per cent of the workforce.

SPD officials called the level "catastrophic" and claimed that at least a further 1m unemployed were not accounted for in the statistics. The Greens said the Government's optimism about economic growth this year was groundless.

The Government, for its part, blamed the weather. Herr Norbert Blum, the Labour Minister, said the freezing temperatures in January had affected a wide range of industries. Herr Martin Bangemann, the Economics Minister, described the rise as disappointing, but said it did not reflect badly on a basically healthy outlook for jobs. "No one is master over ice and snow," he said.

The January total is about 3.2 per cent higher than January 1984, when the weather was mild - which lent some credence to the Government's arguments. Unemployment fell from 10.2 per cent in January last year to 9.4 per cent in December.

Herr Blum did, however, betray some signs of the Government's nervousness at the figures by urging employers to take on new employees rather than, as has been broadly the case until now, increasing overtime.

He also appealed to cities and local authorities to use what he called their "newly won financial muscle" to make long-term investments.

The Government has been insisting that capital investment in the country will increase rapidly this year, possibly even offsetting any fall in export earnings which, due to the strength of the dollar, against the D-Mark, kept the economy, and most important manufacturing industries, afloat last year.

Optimism about a flood of new investments is being increasingly questioned, however, with some economists and industrialists warning that industry may be over-exposed to the uncertainties of the foreign exchange markets.

Belgian unemployment rose to an unofficial record of 12.6 per cent of the labour force in January, according to Belga, the Belgian news agency. AP-DJ reports.

Environmentalists declare war, Page 2

CONTENTS

Europe	2-3	Editorial comment	14
Companies	17-18	Europeans	28
America	6	Euro options	31
Companies	17-18, 20	Financial Futures	37
Overseas	4	Gold	38
Companies	19	Int'l Capital Markets	38
World Trade	5	Letters	15
Britain	8-10	Management	21
Companies	24-26	Market Monitors	27
		Men and Matters	14
		Mining	28
		Money Markets	27
		Raw materials	27
		Stock markets	27
		Wall St.	27-30, 38
		London	27, 31-33
		Technology	20
		Unit Trusts	34-35
		Crossword	34
		Currencies	37

U.S. budget: Reagan plays for high stakes 6

Europe's Airbus: the trouble with Boeing 14

Editorial comment: the U.S. budget; UK pension tax 14

South Africa: step-by-step apartheid reforms 15

Lex: foreign exchange; Volvo; Hillsdown Holdings 16

Allianz: flexes muscles for its next advance 20

Technology: developments in gallium arsenide 20

Management: Novamark moves towards the USM 21

Toronto: resource stocks fuel run to peaks 27

Manufacturing automation: Survey Section IV

Swindon provides low costs and high efficiency. One of the strongest economies in the EEC, it provides a compatible environment for sophisticated operations. With high quality business parks; at the centre of the Western Corridor; only an hour to Heathrow by road and 50 minutes to London by train.

Get the Fact File now.
Contact Douglas Smith, Industrial Adviser,
Civic Offices, Swindon.
Telephone: (0793) 26161
or Telex: 444449

JOIN THE
SWINDON
ENTERPRISE

EUROPEAN NEWS

Decision on German N-plant prompts protest campaign

BY RUPERT CORNWELL IN BONN

WEST GERMANY'S powerful environmental and anti-nuclear movements last night declared an all-out campaign against plans for the country's first nuclear reprocessing plant at Wackersdorf close to the Czech frontier in eastern Bavaria, on which preliminary work will begin in a few months' time.

Almost a decade of controversy climaxed yesterday with the final decision by DWK, the company established by power utilities here to deal with atomic waste, to choose Wackersdorf as the site for the plant, in preference to the other contender, Draguhn in Lower Saxony.

Following the go-ahead given by the cabinet here a fortnight ago, the move of DWK means that West Germany will join the small group of nations, including France, Britain and the U.S., to have a domestic reprocessing capability.

The facility, whose total cost has been variously estimated at between DM 5bn (£1.4bn) and DM 10bn, is scheduled to go on stream in 1993 — assuming the

protest lobbies are beaten back. Its initial capacity will be some 350 tonnes a year, compared with the 300 tonnes of spent fuel presently generated by the 18 nuclear power stations in service in the country.

DWK was last night optimistic that it could meet these targets and underlined the economic benefits that the scheme, which should provide 1,600 new jobs, will bring to a district where unemployment tops 16 per cent, nearly double the rate for Bavaria as a whole.

But its opponents, whose plans for resistance "by every legal means" already include a mass demonstration on February 18, argue that reprocessing is not merely dangerous, but also unnecessarily expensive when compared with other options.

They claim that to place the waste untreated in permanent storage would be 40 per cent cheaper—quite apart from the risk of an accident during transport of used fuel, or that plutonium produced in a reprocessing facility could be diverted for military ends.

Solidarity issues warning on eve of IMF team visit

BY CHRISTOPHER SOBINSKI IN WARSAW

A LEADING Solidarity underground publication has warned that the movement will oppose any International Monetary Fund (IMF) programme for Poland that could lead to a clear drop in the standard of living.

The warning, in the Warsaw-based *Tygodnik Mazowiecki*, comes on the eve of a visit to Poland of an IMF team to discuss Poland's entry terms to the Fund following the lifting of the U.S. embargo on Poland's membership of the IMF.

Solidarity's comments stem from a policy paper circulated by Mr Zdzisław Bujak, the underground leader, who says that the IMF should also demand independent unions in

Poland workers involvement in management councils and a dismantling of the still centralised economic system.

The visit coincides with the official announcement that national income grew by 5 per cent last year in real terms, but was still 14 per cent lower than in 1978.

The official figures for last year's record record grain harvest, a slight improvement in meat production and a 5.3 per cent growth in industrial output.

Last year, Poland had a hard currency surplus of \$1.5bn (£1.35bn) which went mostly on servicing the country's Western debt which reached \$28.5bn at the end of the year.

Swiss expect slowdown in economic growth

BY JOHN WICKS IN ZÜRICH

THE SWISS Government expects a slowing down of economic growth this year, with gross national product increasing by only some 1.7 per cent in real terms. That compares with an estimated 2.9 per cent rise during 1984.

The deceleration is seen as resulting from a general weakening in the world economy, as well as continued restraint in government spending.

Private consumption of goods and services should grow more slowly than last year but with expansion in real terms of an estimated 1.3 per cent it will still be a strong element in overall economic growth. Investment spending is seen as falling off in its growth rate despite a boost in equipment investments.

Higher production in 1985 is expected to improve the already satisfactory capacity-use performance

and lead to a possible slight increase in employment.

The unemployment rate, which last year passed the 1 per cent mark and thus reached its highest level since 1939, is projected to fall back to 1 per cent or less.

At the same time, corporate profitability is forecast as "generally satisfactory" for the year.

Inflation in Switzerland will remain very modest this year. From a 1984 level of 2.9 per cent, it is expected by the Government to drop to an annual average of around 2.5 per cent.

In the foreign trade sector, exports of goods and services are seen as rising by a real-terms figure of 3.5 per cent, compared with one of 5.2 per cent last year. On the import side, a simultaneous fall from 6.5 to 3.8 per cent is foreseen.

Hersant bids for pay-TV channel

By David Housego in Paris

M ROBERT HERSANT, France's controversial right-wing press baron, yesterday made headlines by offering to take over the loss-making pay television venture, Canal Plus.

Canal Plus is 49 per cent owned by the state-controlled advertising agency, Havas, which announced on Friday a sharp drop in its net earnings for 1984 because of losses by Canal Plus. The unexpected performance precipitated a 13 per cent slump in its share price which fell to FFr 620.

M Hersant's offer yesterday was calculated to cause the Government maximum consternation and emphasise his ambition to expand into private television.

The offer is, none the less, in line with his announcement last month of an ambitious project for a national private television chain called TVE (Teleurop) which he hopes will start broadcasting next year. The project is planned to take advantage of the liberalisation of broadcasting promised by President François Mitterrand.

Havas yesterday made clear that in spite of Canal Plus's losses of about FFr 500m last year, the channel was not up for sale. In addition to Havas, state-owned institutions including banks hold another 18 per cent of the shares.

Canal Plus was launched last winter as a pay-television venture in competition with the three national channels. It has suffered from dissatisfaction with the quality of its programmes and the belief that it will be undermined by the opening up of television competition from private stations.

M Hersant's bid is given a further political flavour by the fact that M André Rousselet, the head of Havas, is a close friend of President Mitterrand and was at one time the director of his personal staff at the Elysee. As head of Havas, M Rousselet was worried in an earlier issue with M Hersant when he failed in an attempt to purchase France Soir, the Paris evening daily, from the Hersant group.

Spain to press issue of Rock sovereignty

BY ROBERT MAUTHNER, DIPLOMATIC CORRESPONDENT, IN GENEVA

BRITAIN and Spain will set the stage here today for detailed negotiations on Gibraltar in spite of continuing disagreement over the long-term future of the partly self-governing colony.

Though the British delegation, led by Sir Geoffrey Howe, the Foreign Secretary, will put the emphasis on the practical problems which need to be solved after the opening of the border between the Rock and Spain last night, Spain is expected to raise the issue of sovereignty straight away.

Sr Fernando Morán, the Spanish Foreign Minister, who will face Sir Geoffrey across the Geneva conference table, has gone out of his way to take the heat out of the sovereignty issue by his acceptance that this can be settled only in the very long term.

At the same time, Sr Morán has made it clear that, however long it may take, Spain's

GIBRALTAR'S population is overwhelmingly opposed to any discussion of sovereignty in the series of talks which Britain and Spain start today in Geneva, according to an opinion poll, writes David White in Gibraltar.

The poll, published in the local weekly *Panorama* to coincide with the opening of the Spanish-Gibraltar border to road traffic at midnight, showed 94 per cent against discussing Britain's sovereignty over the Rock. Only 4 per cent were in favour.

ultimate objective is to regain sovereignty over Gibraltar, which it ceded to Britain in 1713, under the Treaty of Utrecht.

In a British television interview broadcast 48 hours before the Geneva talks opened, Sr Morán spelled out his govern-

ment's ideas on the subject in slightly more detail than hitherto.

Spain was seeking to sign a treaty with Britain which would "reintegrate" Gibraltar with Spain, while preserving the Gibraltarians' way of life.

This could mean that Spain would accept a certain amount of self-government by Gibraltar after a transfer of sovereignty.

Gibraltar was being increasingly told by the UK, he said, at a press conference, that it must make its own way. "We accept the challenge to stand on our own feet but we feel we should then assume our own political responsibilities."

However, Mr Bossano, who is considered the most likely successor to the present Chief Minister, the 63-year-old Sir Joshua Hassan, added that Gibraltar could never be totally independent running its own defence and foreign affairs.

One of the main problems on the table today is in what form the sovereignty issue will be discussed in the coming months.

Sr Geoffrey Howe has fully committed Britain to talks on sovereignty in the Brussels agreement.

But the Foreign Secretary wants only Sr Morán and himself to discuss this question, while his Spanish colleague is expected to propose the creation of a special committee on the subject.

sovereignty is an irrelevance at this juncture.

The British Government is firmly committed, under the preamble of the Gibraltar constitution of 1988, and the Brussels agreement of November last year, to respect the wishes of the people of Gibraltar on sovereignty. Both Sir Joshua and, in even stronger terms, Mr Joe Bossano, the Gibraltar Socialist Opposition leader, have stated that they would not accept Spanish sovereignty.

One of the main problems on the table today is in what form the sovereignty issue will be discussed in the coming months.

Sr Geoffrey Howe has fully committed Britain to talks on sovereignty in the Brussels agreement.

But the Foreign Secretary wants only Sr Morán and himself to discuss this question, while his Spanish colleague is expected to propose the creation of a special committee on the subject.

Management changes in the wind at Airbus

By David Marsh in Paris

PROSPECTS for a change of management style at Airbus Industrie increased yesterday as a national private television chain called TVE (Teleurop) which he hopes will start broadcasting next year.

The project is planned to take advantage of the liberalisation of broadcasting promised by President François Mitterrand.

Havas yesterday made clear that in spite of Canal Plus's losses of about FFr 500m last year, the channel was not up for sale. In addition to Havas, state-owned institutions including banks hold another 18 per cent of the shares.

Canal Plus was launched last winter as a pay-television venture in competition with the three national channels. It has suffered from dissatisfaction with the quality of its programmes and the belief that it will be undermined by the opening up of television competition from private stations.

M Hersant's bid is given a further political flavour by the fact that M André Rousselet, the head of Havas, is a close friend of President Mitterrand and was at one time the director of his personal staff at the Elysee. As head of Havas, M Rousselet was worried in an earlier issue with M Hersant when he failed in an attempt to purchase France Soir, the Paris evening daily, from the Hersant group.

Yalta legacy draws praise—and blame

BY DAVID BUCHAN, EAST EUROPE CORRESPONDENT

The 40th anniversary yesterday of the start of the Yalta conference which set the post-war political order in Europe was marked by Soviet bloc praise for the Yalta agreements and denunciation of them by groups in the West.

Mr Vladimir Lomeiko, the Soviet Foreign Ministry spokesman, told a news conference in Moscow that Yalta had laid the ground for 40 years of peaceful co-existence. He criticised "certain circles in the U.S. and other Nato countries" who tried

to depict Yalta as leading to the split of Europe.

"In fact, such a split was created by the activities of the Western powers which united three zones (of occupied Germany) as a separate state and dragged it into the aggressive Nato bloc," he claimed, adding that with Pershing missile deployment in West Germany, "the threat to peace is again beginning to come from German soil."

At the same time, President Erich Honecker of East Germany has given his most pessimistic assessment of intra-German relations since Soviet pressure forced cancellation of his trip to West Germany last September. In a speech last Friday, he said Bonn had made "good neighbourly relations virtually impossible."

Soviet bloc attacks on Bonn for its alleged "revanchism" or its expected to intensify up to the 40th anniversary celebrations in Moscow on May 9 of the defeat of Nazi Germany.

Mr Lomeiko made clear the two anniversaries are linked in the Soviet mind when yesterday he claimed that the views of

those who criticised Yalta "coloured surprisingly, and perhaps tragically for history, the views of the time."

However, at an anti-Yalta rally in London last night, Mr Winston Churchill, the Conservative MP and grandson of the British wartime leader, who attended Yalta, denounced Stalin's betrayal of his promise to allow free and democratic elections in Poland. "Six years of Nazi occupation have given way to 40 years of Soviet occupation," he said.

Yalta legacy draws praise—and blame

those who criticised Yalta "coloured surprisingly, and perhaps tragically for history, the views of the time."

However, at an anti-Yalta rally in London last night, Mr Winston Churchill, the Conservative MP and grandson of the British wartime leader, who attended Yalta, denounced Stalin's betrayal of his promise to allow free and democratic elections in Poland. "Six years of Nazi occupation have given way to 40 years of Soviet occupation," he said.

Dissidents jailed in Yugoslavia

By Aleksandar Lebi in Belgrade

THREE OF the six Yugoslavs originally accused of conspiring to overthrow the regime were yesterday jailed for terms of between one and two years on lesser charges of spreading anti-state propaganda.

Mr Miodrag Milic, a script-writer, received a two-year sentence. Mr Milan Nikolic, a sociologist, and Mr Dragomir Ojic, a radio technician, received sentences of 18 months and one year, respectively.

The case of the "Belgrade Six" was widely considered the most important political trial brought by the authorities in recent years, when the six were put in the dock last November.

But all charges were later withdrawn against one defendant, Mr Pavloko Imstrovic, and the charge against the three sentenced yesterday was reduced from one of subversion to that of hostile propaganda.

The original charge still stands against Mr Vladimir Mijanovic, a sociologist, and Mr Gordana Jovanovic, a philosophy student, and their trial is due to resume at a later date.

FINANCIAL TIMES, US\$ 100,000 published daily except Sundays and public holidays. U.S. subscription rates: \$20.00 per annum. Second class postage paid at New York, NY and at additional mailing offices. POSTMASTER: Send address changes to FINANCIAL TIMES, 14 East 57th Street, New York, NY 10022.

UN appeal on torture

GENEVA - The United Nations Human Rights Commission was urged by Mr Peter Kooijmans, its outgoing chairman, yesterday to set up a system to monitor use of torture against prisoners.

He told the opening meeting of the commission's 1985 session that torture remained a daily occurrence, despite a convention to ban it adopted by the UN General Assembly in December.

It would be some time before the UN convention against torture came into effect. In the meantime the commission should consider setting up machinery by which it would be informed of acts of torture and could recommend ways of combating it.

GENEVA - A 40-nation disarmament conference resumes today with Western diplomats optimistic of progress on a chemical weapons ban treaty and a generally more fruitful session in the light of forthcoming U.S.-Soviet arms control talks.

The conference, an autonomous body linked to the United Nations, brings together the five nuclear powers—the U.S., the Soviet Union, Britain, France and China—plus 21 non-aligned states.

Last year's session took place at a time of frosty relations between the superpowers after the suspension in late 1983 of U.S.-Soviet talks on

Disarmament talks resume amid optimism for progress on chemical weapons ban

GENEVA - A 40-nation disarmament conference resumes today with Western diplomats optimistic of progress on a chemical weapons ban treaty and a generally more fruitful session in the light of forthcoming U.S.-Soviet arms control talks.

The conference, an autonomous body linked to the United Nations, brings together the five nuclear powers—the U.S., the Soviet Union, Britain, France and China—plus 21 non-aligned states.

Last year's session took place at a time of frosty relations between the superpowers after the suspension in late 1983 of U.S.-Soviet talks on

medium and long-range nuclear missiles.

Now that missile negotiations are set to resume in March, Western diplomats are hoping for a more dynamic session of the disarmament conference.

"Almost everybody is optimistic that the climate will now be better and that there will be more progress on chemical arms," said Mr Donald Howitz, the chief U.S. delegate.

Mr Howitz said U.S. Arms Control and Disarmament Agency director Kenneth Adelman would address the session on February 12. Negotiations on chemical arms, that have been held in different

forms for 16 years, got bogged down over a draft treaty tabled last April by Mr George Bush, the U.S. vice-president.

The draft called for a ban on the possession, storage, production or export of chemical arms. It also proposed that governments should be obliged to open for international inspection state-run or state-controlled chemical facilities where there was suspicion that the treaty was being violated.

Moscow rejected the idea, saying it was intrusive and that it discriminated against the Soviet bloc, which would have to open all chemical plants to inspection while private Western sites would be exempt.

Hardly any progress was made on other items the conference is dealing with such as the prevention of an arms race in outer space, a nuclear test ban or a ban on radiological weapons—arms that can kill by dispersing radioactive materials without a nuclear explosion.

Mr Howitz was named last month by President Ronald Reagan to succeed Louis G. Buzek, who retired after serving for three years.

Opening day speakers are scheduled to include Victor L. Israelyan, the veteran chief Soviet representative, whose return to Geneva last week disproved widespread rumours that he was being reassigned.

Harmless?

Most people would automatically guess that the pictured snake is poisonous. A few might know that, in fact, it is the *Lampropeltis getula* californicae and completely harmless.

The difference between guessing and knowing is information. A lack of it can lead to false conclusions and wrong actions.

Information is also one of the main criteria of successful banking. Discerning clients expect advice and solutions based on knowledge, not on guesswork. This is one of the reasons why an increasing number of private and institutional investors are turning to Bank Vontobel.

In 60 years our bank has evolved from a small brokerage house to an internationally oriented Swiss bank. Members of the Zurich Stock Exchange, we are respected beyond our size for our healthy spirit of enterprise, professionalism, and, our strong sense of obligation to our clients.

With a bias for action, we confidently offer a full range of financial services, from portfolio management, investment counselling to trading in securities, foreign exchange, precious metals. For people who appreciate the reassuring feel of Swiss perfection at work for them.

BANK VONTOBEL
Zürich

The professionals with the personal touch.

Bank J. Vontobel & Co. AG, Bahnhofstrasse 3, CH-8002 Zurich, Switzerland. Tel. 044/4887111
Vontobel USA Inc., 450 Park Avenue, New York, NY 10022

EUROPEAN NEWS

Paul Betts looks at the French Communists on the eve of a critical party congress

The pressures build up from below

"THE FORTRESS is under siege and for the first time the walls are beginning to crack." This remark, dropped casually by a French Communist voter in a conversation the other day, sums up in a nutshell why the French Communist Party's 25th Congress tomorrow will be like no other congress in the party's history.

For the first time, the leadership's draft resolution—usually sacrosanct text which outlines the party's policy—will not win universal approval. Discussion is also likely to be more heated than in the past with the leadership itself coming under fire from some of the party's more outspoken members.

Already three out of 85 Communist regional federations in France have rejected the document and others have expressed profound misgivings and put forward major amendments. The party leadership itself acknowledges that about 10 per cent of its members will vote against the draft resolution.

Others say the rate of opposition to the document could be as high as 20 per cent or even 30 per cent.

For any other party a majority of 70 per cent or 80 per cent, let alone one of 90 per cent, would represent a landslide. For the Communists it would be a setback. It would eloquently confirm the deep internal conflict and identity crisis of the party.

The party has been struggling to halt its steady electoral decline which has seen it drop from more than 30 per cent of the popular vote to barely 10 per cent in the European elections last June.

After the European elections, it pulled out of the French left-wing governing coalition with the Socialists, blaming the alliance for its troubles. Since

The majority of voters believe the French Communist Party is in a phase of "inevitable decline," according to a public opinion poll published yesterday. The poll, on the

evening of the party's 25th congress which opens tomorrow, shows 54 per cent of voters taking that view. Significantly, 46 per cent of Communist party sympathisers share it also.

Withdrawing from the government, the Communists have increasingly attacked Socialist policies voting against the 1985 budget and more recently against the extension of the state of emergency in New Caledonia. For its part, the pro-Communist CGT labour confederation has also hardened its approach to industrial restructuring.

The hardline Communist Party leadership has also sought to silence the moderates or "renovators" inside the party who still argue in favour of

maintaining a so-called union of the left in France and of Communist participation in government. In the process, M Georges Marchais, the Communist secretary-general, has been striving to save his job at the top of the party.

At first, it seemed the hardliners had regained full control of the party and successfully silenced its internal critics. But as the party congress has approached, the critics have resurfaced in greater numbers and voice than the leadership had anticipated. M Pierre

Juquin, the former spokesman of the party and a leader of the "renovators," wrote an article in L'Humanité, the Communist daily newspaper, claiming that the party was losing its identity and credibility.

M Juquin is likely to be punished at the Congress by being removed from the party's political bureau. But he is not alone to openly challenge the leadership. M Marcel Rigout, the former Communist minister, has also called for changes in policy and advocated the need for a continuing union of the left in France. The moderate minority in the party fear that unless the party evolves more along the lines of the Italian Communists, who are willing to adopt more Social Democratic policies, it risks disappearing in its own political ghetto.

Although M Marchais appears so far to have saved his job as

secretary general, his power and influence have been greatly diluted in recent months. Indeed, the Congress is expected to decide to flank for the first time, the secretary general with two influential deputies, thus preparing for the eventual succession at the top.

The degree and openness of debate at the Congress next week will have a telling impact on the future of the party. At this stage, the hardliners and the leadership are expected to try to stifle and discourage criticism by the "renovators" as much as possible—even to the point of suggesting that there is little if any room for them inside the party. But it might turn out to be a pyrrhic victory for the traditional hardliners, especially if the party fails to halt its electoral decline in the French local elections next March.

Junior party crisis shakes Portugal's coalition government

BY DIANA SMITH IN LISBON

A CRISIS erupted in Portugal's Social Democrat Party (PSD), the junior partner in the ruling centre-left coalition. As a result, the coalition's future could be in jeopardy.

The PSD leader, Prof Carlos Mota Pinto, who is Deputy Prime Minister in Sr Mario Soares' government, narrowly escaped defeat at the weekend on a motion of confidence he demanded from the party's national council, the body responsible for party decisions between congresses.

Irritated by criticism of his leadership and of efforts to promote a military candidate for this year's presidential election, Prof Mota Pinto, who is also Defence Minister, stormed out of the council after demanding an "unequivocal and clear" expression of support for his continuation as leader.



Prof Carlos Mota Pinto: narrow victory

He scraped through the ensuing motion of confidence with 38 votes in his favour and 36 against. Next Saturday at another council meeting, Prof Mota Pinto will announce whether he considers this a sufficiently clear expression of support for him to remain leader.

The PSD's latest bout of tilting at its own leaders—a ritual the party has practised more than any other Portuguese group since its foundation in 1974—comes at an especially tricky time.

Bent on promoting his own political party, President Antonio Ramalho Eanes, who has made clear his distaste for the unsettled ways of Portuguese politicians, seems to be looking for a strong excuse to dissolve Parliament and call a snap general election where his new party could compete. The constitution bars a President from making a move unless a fully blown political crisis causes the breakdown of government and threatens democratic institutions.

Until the PSD's internal temperature shot up at the weekend, threatening a rift in the Government if Prof Mota Pinto feels unable to carry on, such a crisis seemed unlikely. Sr Soares has been intent on

ensuring government stability and leaving no loopholes through which the presidential strategy might slip. He may be thwarted by a party which has not shared the desire for stability displayed by Sr Soares' Socialists.

In 1981, the PSD drove their then leader and Prime Minister, Sr Francisco Balsemão, to resign in the face of hostility to his leadership. He returned later to office but resigned again in 1982 when his party colleagues made it impossible for him to continue.

His Finance Minister, Sr João Salgueiro, who has lately risen high in the PSD, declared after Prof Mota Pinto's narrow weekend victory that he is ready to take over the party leadership and continue in the coalition, albeit with a major Government reshuffle.

Under Sr Balsemão and Sir Salgueiro Portugal's balance of payments of deficit soared to \$3.2bn, provoking the economic drama that forced Sr Soares to declare and impose fierce austerity in 1983-84. It is unlikely that Sr Soares would find the former Finance Minister a congenial government partner.

Kyprianou looks for comfort in Athens

By Andriana Ierodiconou in Nicosia

THE CYPRUS President, Mr Spyros Kyprianou, who is facing acute criticism from both the Communist and right-wing opposition at home for the collapse of last month's settlement talks in New York with Mr Rauf Denktaş, the Turkish Cypriot leader, is flying to Athens today to brief the Greek Government on what went wrong.

Many blamed the Greek Cypriots for the breakdown, fully backing Mr Denktaş, and Mr Kyprianou is expecting the same sort of reinforcement for his stance from Greece.

Mr Denktaş left New York insisting that Sr Javier Peres, the UN Secretary-General, had called the summit meeting purely for the two sides to sign a preliminary settlement document drafted in November, after three months of indirect negotiations. He maintained that substantive negotiations were supposed to take place to fill in important blanks in the document before signature.

Back in Nicosia, the Cypriot President has been attacked for not compromising in New York by the two main opposition parties—the pro-Moscow Communist AKEL, and the pro-US Democratic Rally, which between them account for about 85 per cent of the electorate. At the end of last week he sought to form a new alliance with the Rally, but this was rejected by Mr Glafkos Clerides, the party's leader, who called instead for early presidential elections.

Senior aides to the President suggested in Nicosia yesterday that he would try to ride out the political storm, meanwhile working with the UN for another meeting with Mr Denktaş in the coming month. The backing of Athens for this course of action would be a helpful boost.

Naples gangland trial opens in prison court

BY JAMES BUXTON IN ROME

WHAT IS BEING called the biggest trial in Italian history lumbered into motion in Naples yesterday in a courtroom that, for security reasons, has been constructed inside a prison. The trial is of 639 alleged members and associates of the Camorra, the Naples version of the Sicilian Mafia. Those on trial were arrested in a vast round-up in June 1983.

They are accused of a range of offences connected with the Camorra's two main activities—the trafficking of drugs and the extortion of protection money from businesses.

Yesterday, 158 accused appeared in 20 cages inside the vast courtroom in the Poggioreale prison.

But some of the more notable figures on trial were not in

All are said to be connected with an organisation within the Camorra called the Nuova Camorra Organizzata which is led by Raffaele Cutolo who is in prison on an island off Sardinia. The authorities claim that Sig Cutolo's organisation has been routed though the other branches of the Camorra continue to operate in the Naples area.

Yesterday, 158 accused appeared in 20 cages inside the vast courtroom in the Poggioreale prison.

But some of the more notable figures on trial were not in

court yesterday. They include the former chairman of the Avellino First Division Football Club, who is ill, and Sig Enzo Tortora, one of Italy's leading television presenters. The latter, who is alleged to have been involved in the sale of drugs to show business people, is to appear in court later this month. He has vigorously protested his innocence of all charges and obtained freedom from prison last year when he was elected to the European Parliament. This gave him parliamentary immunity. Since then, he has campaigned against what he

regards as the iniquities of the Italian judicial system. The charges which the accused face are based on evidence given by a number of Camorra members who decided to turn state's evidence. Among these is Pasquale Barra, formerly a close associate of Sig Cutolo, whose terrifying nickname is "o animale" — the Animal.

Like the other Camorra members who are co-operating with the authorities, he is under the closest possible protection. An army of policemen and Carabinieri is guarding the prison and surroundings.

The incident is a vivid demonstration of the ferocity with which Italian officials apply laws whose provisions themselves are very severe. The tax authorities argue that nothing short of exemplary and draconian measures will make an Italian businessman pay his taxes.

The Grimaldi family which owns the cafe are attempting to appeal against the action of the Guardia di Finanza and they insist that their establishment is fully up to date with all its tax payments. Three other important bars were closed down at the same time for similar offences.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Rome's oldest cafe falls foul of the taxman

BY OUR ROME CORRESPONDENT

THE OWNERS of the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, have been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

steps—failed to comply with a new law which requires the installation of electronic cash registers which record all transactions on a magnetic tape for the benefit of the tax man.

The law was introduced in order to prevent the tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

steps—failed to comply with a new law which requires the installation of electronic cash registers which record all transactions on a magnetic tape for the benefit of the tax man.

The law was introduced in order to prevent the tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

steps—failed to comply with a new law which requires the installation of electronic cash registers which record all transactions on a magnetic tape for the benefit of the tax man.

The law was introduced in order to prevent the tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

The proprietors of the Cafe Greco—which featured in the memoirs of the Irish-century pillarer Casanova—admit that they did not have the machine working on time. This, they say, was because its manufacturers did not arrive in time to seal the recording tape. Instead, they say, they kept printing receipts of all transactions for the few days in question.

Since last Friday probably the oldest and most famous cafe in the city, the Café Greco, in Via Condotti, has been hit by a tax evasion by shopkeepers which is, by common consent, rampant.

Terrorism high on Rome talks agenda

By Our Rome Correspondent

THE WAVE of terrorism directed against Nato-related targets that has hit several European countries is likely to be high on the agenda of the European political co-operation ministerial meeting to be held in Rome next week.

Italy, as current president of the EEC, is not planning a concerted Community initiative against the terrorism. However, Sig Oscar Luigi Scalfaro, the Minister of the Interior, is pressing ahead with meetings with his European opposite numbers.

Today, he visits Spain and next week West Germany. The following week Mr Leon Brittan, the British Home Secretary, will be coming to see him in Rome. Sig Scalfaro has already visited France, the Netherlands and Belgium.

His meetings are devoted to the subjects of both terrorism and drugs.

Next Tuesday's political co-operation meeting is one of the regular ones involving EEC foreign ministers and or their deputies.

£10,000 TO INVEST?

DON'T INVEST A PENNY UNTIL YOU'VE CHECKED WITH US

If you have £10,000 or more to invest, half-yearly interest to the account. take a close look at our 28 Days Notice Account.

It now offers a higher rate of interest than any comparable plan from any other national building society.

No less than 9.40% net (13.43% gross), rising to an effective annual rate of 9.62% net (13.74% gross) if you add your

What's more, provided you maintain a minimum balance of £10,000, you can withdraw any amount, at any time, without notice or penalty.

</

AT LAST, A MAJOR NAME EMERGES IN UNIX-BASED BUSINESS COMPUTERS.



Surprised?

It isn't really surprising that NCR are the first major computer manufacturer to commit themselves to UNIX - the operating system that has the potential to make all computer systems compatible.

After all we were the first to build a fully transistorised computer. First to build mainframe computers with bus architecture. First with on-line bank-teller machines. First with externally programmable 32-bit microprocessors.

The first computer company to celebrate its centenary.

Nothing better symbolises our commitment to Unix than our latest Tower XP computer.

It incorporates multiple M68010 processors. It uses the very latest Unix system V. It forms part of a growing family of NCR Unix-based computers.

All told, it offers a price/performance ratio that heralds a new era in value for business computer users.

That should come as no surprise if you know NCR. You'll know that we are one of the computer industry's leading innovators, a company well capable of bringing radical new solutions to every area of your business. You'll know that that's how we became a major name in computing in the first place.

NCR

INNOVATIVE COMPUTER TECHNOLOGY
YOU CAN EXPECT IT FROM NCR

Information Centre, NCR Limited, 206 Marylebone Road, London NW1 6LY. Telephone: 01-724 4050

To: NCR Limited, 206 Marylebone Road, London NW1 6LY

NCR Computer systems cover a wide range of business applications. Please tick the business area that you are in and we will send you full details of the relevant NCR systems.

Retail ☐ Wholesale ☐ Construction ☐ Garage/Petrol ☐
Banking ☐ Insurance ☐ Manufacturing ☐ Distribution ☐
Other ☐

Name
Title
Company
Address
Telephone

OVERSEAS NEWS

South Korea will not jail returning dissident

BY STEVEN B. BUTLER IN SEOUL

SOUTH KOREA yesterday said that Mr Kim Dae-Jung, Korea's leading opposition politician, would not be returned to prison when he arrives home later this week, ending months of international speculation, although it is believed likely Mr Kim may be subject to some form of house arrest.

The announcement of the Government's more lenient policy towards Mr Kim comes just two days after Mr Ronald Reagan, the U.S. President, issued a formal invitation to Mr Chun Doo-Hwan, the Korean leader to visit the U.S. in April.

Diplomats in Seoul discount the possibility that an explicit deal was arranged between the two Governments - trading Mr Kim's freedom for the invitation to Mr Chun. But the U.S. is known to have raised the issues of Mr Kim's return in private discussions with Korean officials, and a delay in issuing the President's invitation may have put further pressure on the Korean Government to moderate its stance.

Mr Kim Dae-Jung (right) yesterday welcomed the South Korean statement as "the beginning of a reasonable attitude," reports Reuter from Washington, but called for an amnesty for political prisoners. Mr Kim noted there was no mention on "whether I can avoid house arrest or surveillance, which would deprive me of freedom," and called on the Government to "restore full political freedom of all present and past political prisoners and banned politicians" to lay "the foundations for genuine political dialogue."



According to a diplomat "Mr Chun knows that if there are severe political difficulties in Korea at the time of the visit, it could spoil the trip and make things very difficult for him personally," the American has clearly pointed this out to the Koreans.

Mr Kim has frequently been

compared to Sen Benigno Aquino of the Philippines whose assassination at Manila airport upon his return in 1983 touched off political unrest that nearly toppled the Philippine Government.

Mr Kim nearly defeated Mr Park Chung-hee the former South Korean President, in an

election in 1981.

After President Park's assassination in October 1979 Mr Kim was once again a serious contender for the presidency. He was arrested in May 1980 having been in and out of prison when Mr Chun Doo-Hwan, then a two-star general in the army, came to power in a military coup.

Mr Kim was first sentenced to death for sedition. The sentence was later commuted to 20 years in prison, a decision that is believed to have earned Mr Kim, who had become president, an invitation to visit the U.S. in 1981.

Mr Kim was allowed to go to the U.S. in December 1982 to seek medical treatment, after serving two and a half years of the sentence.

The Korean Government has been quietly negotiating with Mr Kim up until December, trying to encourage them to return to Korea after the national assembly election on February 12.

Coming just ten days before national assembly elections and

just a week before Mr Kim's return, the invitation by President Reagan to Mr Chun is regarded as a strong statement of confidence in and support for the Korean Government.

The U.S. has a major military presence in South Korea which it regards as pivotal to the defence of Western interests in Asia.

News of Mr Kim's return now scheduled for Friday morning, has not appeared in the Korean media, and Koreans generally are unaware of his plans.

Mr Kim's supporters, however, have organised a welcoming committee chaired by Mr Kim Young-Sam, another prominent dissident leader. Hundreds of people are expected to try to greet Mr Kim at the airport when he arrives although Korean police may take steps to prevent it. He will be accompanied on his flight to South Korea by about 20 prominent Americans, including three Congressmen who say they want to ensure his safety.

Lebanese pound tumbles

By Richard Johns in Beirut

THE LEBANESE pound tumbled yesterday to a range of 13.15 to 13.20 to the dollar, substantially below the previous record low of 13.30 reached at the close of trading on Saturday.

Dr Edmond Naim, governor of the central bank, met his deputies and senior officials to discuss how to slow the decline in the currency's value.

Recommendations made by the bankers' association on January 25 - when the present crisis started as the rate rose above 12 pounds to the dollar - are understood to have been approved at a long Cabinet session on Sunday.

The bankers' association has proposed a tightening of credit and much closer surveillance of advances to ensure that loans are not used for speculation in the currency.

China's press in campaign against harassment

BY MARK BAKER IN PEKING

CHINA'S government-controlled press and broadcasting has begun a bold campaign for greater freedom and legal protection following a series of attacks on journalists.

Leading newspapers including the party mouthpiece, People's Daily, Radio Peking and the national television network have joined the campaign after a newspaper photographer was beaten by security guards last week.

The photographer, Zhai Wei, from the popular Peking Evening News, was set upon by six guards after he went to the aid of a woman who had fainted in the snow outside an exhibition hall in the western suburbs of Peking.

Zhai had run to a nearby hotel to summon a taxi to take the unconscious woman to hospital, but the guards refused to allow it through the gate.

When Zhai went to take photographs, the guards jumped on him, dragged him into a gatehouse, twisted his arms and neck and confiscated his camera, according to a report in the English-language China Daily.

Later Zhai's editor went to the scene to protest. While the guards returned the camera they accused Zhai of being a

"phony reporter" or a newsman "seeking personal gains."

The Evening News carried the story on its front page last Thursday. Since then, the case has received extensive coverage in several other leading newspapers, on radio and television and has become a rallying point for Chinese journalists who claim to be the victims of an increasingly level of harassment.

Three of the security guards involved in the attack have now been dismissed and the others have had pay and bonuses cut.

The Bank of China has given its Shenzhen Special Economic Zone branch the authority to set up joint ventures with foreign banks and to fix interest rates, the official Xinhua news agency reported yesterday. AP-DJ reports from Peking.

The Portuguese Governor of Macao arrived in Peking yesterday to begin economic co-operation talks and disclaimed any intention of discussing the territory's long-term future, Reuter reports.

The visit of Rear-Admiral Vasco Almeida e Costa, less than two months after Britain signed an agreement to return Hong Kong, Macao's big, economically powerful south China neighbour, to Peking.

Israeli soldier shot dead on West Bank

Gammien killed an Israeli soldier guarding a government building today in a

shooting that has rocked the occupied West Bank in recent weeks, security sources said, Reuter reports from Tel Aviv.

The sources said the soldier, a reservist, was guarding a government building in El-Bireh, north of Jerusalem.

A Greek tanker was struck by a missile in the Gulf yesterday and serious damage to the engine-room had put the vessel out of control, the Greek Merchant Marine Ministry said. Reuter reports from Athens. A spokesman said the tanker, named *Faith*, was hit south of Iran's Kharg Island.

N-ship ban refusal

The U.S. has refused a request to change the warship it wants to send to New Zealand in order to comply with New Zealand's anti-nuclear policy, Dai Hayward reports from Wellington. The American response to the proposal was received in Wellington on Sunday.

Marcos fails to check Communist resurgence

BY EMILIA TAGAZA IN MANILA

A LARGE group of armed men, mostly in their twenties, recently raided and occupied the police station and town hall of a remote fishing village in Zamboanga Del Sur province in the southern Philippines. There was no scuffle. They calmly collected firearms, thousands of rounds of ammunition, radio sets and typewriters. The villagers were unperturbed, some even discreetly acknowledged the young men.

The raiders were guerrillas of the New People's Army (NPA), military arm of the outlawed Communist Party of the Philippines (CPP), who have been conducting similar raids in order to increase their arsenal and communications network. The villagers did not fear them, for the NPA operates - in the few remote areas where they have set up parallel governments - in a Robin Hood style. Government and military personnel who have fallen foul of the peasants are executed, free medical services offered, and "taxes" are collected from large logging, mining and agricultural estates.

The growing influence of the Communists is undoubtedly the biggest threat to Philippines security. Claiming a membership of about 30,000 and mass support of several millions, they are the only growing insurgency movement in Southeast Asia. The Philippines' allies, particularly the U.S. and the Association of Southern Asian Nations (Asean), are becoming increasingly nervous and are making their concerns known to Manila quite bluntly.

Government estimates and the NPA's own claims give the armed strength. The NPA said it has 20,000 full- or part-time guerrillas operating in 50 out of the country's 73 provinces. The Government said there are no more than 10,000 armed NPA members. Whichever figure is closer to reality, it is still small in a country of more than 50m. Nevertheless, it represents an impressive growth from the 100-odd ideologues led by Sr Jose Maria Sison, who took to the hills in 1969 to initiate a protracted guerrilla struggle.

An indication of the insurgents' strength is that NPA units in company strength of up to 100 men regularly attack detachments of government forces, or privately-defended estates of big businessmen. The Government admits that last year almost 1,000 military per-

sonnel and 1,000 civilians were killed in clashes with the NPA. The rebels lost about 1,000 men.

The growing menace has not been lost on friendly governments and foreign investors who have stakes in keeping stable government in the Philippines. The U.S. is particularly concerned, for the Philippines is host to two of the superpower's largest bases outside the U.S. mainland. The U.S. does not want to lose these bases as it could radically shift the strategic balance in the Pacific region.

Foreign Minister Arturo Tolentino has disclosed that the Communist rebels are the only growing insurgency movement in South-East Asia. The Philippines' allies are becoming increasingly nervous and are making their concern known to Manila quite bluntly.

U.S. may increase its military assistance to the Philippines in addition to the \$500m five-year assistance package, or "rent" provided by the military bases agreement, in order to help counter insurgency. The increase is possible, but the kind of assistance I see is not in the form of arms but perhaps in the form of advisers for training men and for the improvement of equipment," Mr Tolentino said. Military experts have been quick to comment that the training could involve the handling of arms and equipment to be used against the Communists.

The U.S. concern has been echoed by Asean, which is most disturbed by any prospect, however faint, of both the loss of the bases and the emergence of another Communist nation on its doorstep. In an unprecedented move, Mr Lee Kuan Yew, Singapore's Prime Minister, invited Mr Cesar Virata, the Philippines Prime Minister, and Mr Juan Ponce Enrile, the Defence Minister, to a meeting in Singapore with senior Asean ministers.

A new cause for concern is the Communist Party's threat to

enter the mainstream of Philippine politics. In a recent interview which Government-influenced newspapers tried to play down, Mr Sison called for a general coalition between the party and legal opposition groups in order to bring down the Government of President Ferdinand Marcos. Mr Sison has been detained since 1977 but has demonstrated an extraordinary ability to continue to speak for the party on policy issues. Mr Sison proposed that the coalition field candidates in the local and presidential elections scheduled for next year and 1989.

The motivations of the party in deciding to participate in the elections is clear and the party boasts it is in a "no-lose" situation. It argues that following the assassination of opposition leader Benigno Aquino in August 1983, President Marcos has become alienated from the middle class, who are essential to the viability of his Government. Mr Aquino was shot moments after being taken into military custody upon his arrival from a three-year self-exile in the U.S. The outrage caused by the assassination resulted in massive anti-Government demonstrations and a serious loss of political and economic confidence in his Government.

The volatile political atmosphere set off the capital flight which caused the current economic crisis. The Philippines had to re-schedule some of its \$25.6bn external debt, and the economy went into a tailspin, contracting by 5.3 per cent last year, the worst post-war performance and spawning more Communist sympathisers.

Mr Marcos survived the storm but is ill and has been unable to regain the political initiative. There is now frantic manoeuvring for position both within his ruling party and within the opposition in anticipation of his departure from office.

Judging the opposition to be ineffective, the Communists see advantages in gaining a foothold in a weak government which it might quickly dominate and control.

Mr Marcos used the issue of the "Red Threat" to justify the declaration of martial law in 1972, under which he acquired tremendous powers. He vowed to eradicate the Communist threat. As he is entering the twilight of his power, he sees instead their continued growth.

Jayawardene warns Tamil terrorists

BY MERVYN DE SILVA IN COLOMBO AND ALAIN CASS IN LONDON

THE RISK of island-wide confrontation between Sri Lanka's Tamil minority and the Sinhalese-dominated Government grew yesterday following a hard-line speech by President Junius Jayawardene.

It was also confirmed that Sri Lanka is negotiating to try fast gunboats in its escalating war against Tamil terrorists.

In his Independence Day message yesterday, President Jayawardene warned that "the terrorist menace" so that all communities could live in peace, equality and harmony. "We shall overcome," he said, declaring his readiness for dialogue on the ethnic or any other issue.

However, the Ceylon Workers Congress (CWC) whose leader, Mr S. Thondaman, is a Cabinet Minister, charged the Government of trying "to impose its will on the Tamil minority through a harsh military operation." The CWC controls the Indian Tamil labour in the economically vital plantation sector. It also denounced the Government's latest plan to introduce Sinhalese settlers to the predominantly Tamil, violence-torn areas of the north.

The CWC's frontal attack has not only raised doubts about Mr Thondaman's future as a minister but the possibility of a political alliance between the Indian Tamil community of the Central Province and the Tamils of the north. The CWC criticised the Government's present stand of not negotiating with the Tamil main Tamil party, unless it publicly renounced separatism.

This, in turn, raises pressure on the Indian Government, with its own Tamil unionists, to intervene.

While the Government argues that the ethnic issue is

an "internal matter" on which it will not negotiate with "outsiders," the CWC has asked it to seek India's "good offices." Mr Thondaman returned from Delhi recently where he met the Indian Prime Minister, Mr Rajiv Gandhi, who last week described the Sri Lankan situation as "terrible."

The CWC says its activists are being "harassed, arrested and victimised" by estate managers and police. Any unrest in the plantations can do enormous damage to the island's economic and aid prospects. Last year, Mr Ronnie de Mel, the Finance Minister, issued Sri Lanka's case before its aid group on the promise of a "political settlement" by December and the certainty of a balance of payments surplus of \$200m because of high tea prices. Last week Mr de Mel and two senior colleagues visited western capitals to explain to donors the reasons for the collapse of the all-party conference on the Tamil problem.

Cougar Holdings, a Southampton-based company, which manufactures fast patrol boats, confirmed yesterday that the Sri Lankan navy was testing a "prototype" craft. If the trials prove satisfactory, the company said, it may be asked to quote for further craft.

Sri Lanka has been discussing the purchase of military equipment with several companies around the world since its war against Tamil guerrillas took a serious turn last year.

Cougar Holdings would not comment on a Sri Lankan newspaper report that up to ten of the patrol vessels may be needed. Sri Lanka has recently sharply increased its defence spending in an all-out effort to defeat the terrorists.

Notice of Redemption

To holders of

Ford International Capital Corporation

6% Convertible Guaranteed Debentures due March 15, 1986
(Convertible into Common Stock of Ford Motor Company)

Issued under Indenture dated as of March 15, 1971 with Citibank, N.A.

NOTICE IS HEREBY GIVEN that Ford International Capital Corporation has called for redemption all its outstanding 6% Convertible Guaranteed Debentures due March 15, 1986 (the "Debentures"), to be redeemed on March 7, 1985 at a redemption price of 100% of their principal amount together with interest accrued to the date fixed for redemption.

The Debentures are to be redeemed at the Brokers Services Department of Citibank, N.A., 111 Wall Street-5th Floor, New York, New York 10043, and the main offices of Citibank, N.A. in Amsterdam, Brussels, Frankfurt/Main, London (Citibank House), Milan or Paris, or the office of Kredietbank S.A., Luxembourgoise in Luxembourg, as the Company's Paying Agents, and will become due and payable on March 7, 1985 at the redemption price. On and after such date, interest on the Debentures will cease to accrue.

The Debentures should be presented and surrendered at the offices set forth in the preceding paragraph on the redemption date with all interest coupons maturing subsequent to the redemption date. If such coupons are not attached, payment will be made only upon the delivery to the Paying Agent of funds in the amount of the unredeemed missing coupons.

The Debentures are convertible into Common Stock of Ford Motor Company at the adjusted conversion rate of 29.71 shares of such Common Stock for each \$1,000 principal amount of Debentures. The right to convert the Debentures will expire on March 7, 1985.

FORD INTERNATIONAL CAPITAL CORPORATION

Dated: February 5, 1985

This announcement appears as a matter of record only.

PUROLITE INTERNATIONAL LTD

£400,000

To finance the acquisition of the Ion Exchange Resin manufacturing plant in South Wales.

Arranged and provided by
WELSH DEVELOPMENT AGENCY

5th February 1985

WORLD TRADE NEWS

W. Germany pushes China for clearer trade directives

BY RUPERT CORNWELL IN BONN

HERR MARTIN BANGEMANN, West German Economics Minister yesterday issued a sharp call to the Chinese to give better explanations of their domestic market needs to West German companies seeking business there.

His plea came on the opening day of high-level trade talks between delegations from the two countries in Bonn. It illustrates the growing difficulties of trade with China, despite Peking's drive to modernise its economy by opening doors to foreign suppliers.

Herr Bangemann admitted that "transparency"—in the form of more up-to-date statistics and better elaborated invitations for project tenders—had improved of late. But potential suppliers are still finding it hard to obtain exact data upon which to base their offers. He also demanded that the Chinese authorities help for permanent representatives of foreign concerns in the country—as well as greater attention to small and medium companies, well-placed to provide the increasingly specialised

equipment required by Peking planners.

Hitherto, Chinese concerns have tended to deal with large companies, better able to accommodate barter trading proposals, or join in the financing of a deal, Herr Bangemann pointed out.

Although long-standing proposals for German help with the development of China's civil nuclear, aerospace and space industries will be examined this week, both sides have warned that immediate and firm decisions are unlikely.

Even so, and helped by a surge of 22 per cent in China's exports to the Federal Republic, trade between the two countries came close to DM 5bn (\$1.6bn) in 1984. Bonn is looking for a further increase this year.

Mrs Chen Muhua, Minister for Foreign Trade who is heading the Chinese delegation, promised that the present liberalisation policies of Peking would be continued and speeded up. Foreign trade and pricing policies would be increasingly freed from ministerial dictate, she declared.

ECGD 'will continue to meet its objectives'

BY OUR TRADE EDITOR

THE CASH flow problem of the Export Credits Guarantee Department should be seen against the perspective of reserves of more than £800m, Mr Paul Channon, Trade Minister, said yesterday.

He told a luncheon audience of City advisers to the ECGD that the Department would continue to be able to meet its twin objectives of encouraging exports and operating at no net cost to the taxpayer.

The ECGD was not alone in suffering a trading loss and a cash deficit. "All its international counterparts are in the same boat," he said.

The Minister coupled his words of reassurance with a

hint that some of the Department's loss-making services may be cut or abolished.

Mr Channon's remarks can be seen as anticipating the likely thrust of interrogation when the Public Accounts Committee of the House of Commons takes evidence from the ECGD later this month.

The Department's latest accounts were qualified by the Government auditor last week on the grounds that not enough provision had been made for political risk.

The auditor also questioned the viability of some of the services more peripheral to the ECGD's business.

Alcatel forges new link in radio-telephone race

BY DAVID MARSH IN PARIS

A SHAKE-UP has taken place in alliances among French and West German electronics companies competing to build a joint radio-telephone service in the two countries.

Alcatel-Thomson, the French state-owned telecommunications group, has foreseen its earlier partner, Siemens, in favour of links with Standard Elektrik-Lorenz (SEL), the German subsidiary of International Telephone and Telegraph.

The two companies will be working together to reply to external tenders for a Franco-German cellular radio-telephone system, to be based on digital technology, planned to come into operation from around 1990 onwards.

Earlier plans forged by the Bonn and Paris Governments to

set up a joint system from next year onwards, based on older analogue equipment, were abandoned last autumn because of differences between the two sides over the technology involved.

Alcatel-Thomson yesterday said it had chosen SEL as the partner for the new system because it was the "most competent in this field."

The new association will also involve the private French Sociétés Anonymes de Télécommunications (SAT) as well as AEG Telefunken.

The decision effectively downgrades earlier plans at Alcatel on collaboration with Philips of the Netherlands over a 900 MHz cellular radio system based on the MATS-E standard, which still, as yet, exists only on paper.

U.S. 'near' to regulations change on textile imports

BY NANCY DUNNE IN WASHINGTON

A HIGH-LEVEL inter-agency committee has been examining hundreds of comments protesting at new U.S. textile import regulations and is said to be close to proposing revisions of the rules implemented amid much controversy last autumn.

The Committee for the Implementation of Textile Agreements is composed of representatives from the State, Treasury, Labour and Commerce departments, and the U.S. trade representative.

The rules, condemned last month by the textile surveillance body of the General Agreement on Tariffs and Trade in Geneva, alter the American country-of-origin criteria and change the long-accepted "substantial transformation" requirement applied to U.S. textile and apparel imports.

The U.S. Customs Service, determined to stem what officials say has been a flood of illegal imports, claims new rules have caused little disruption. However, Hong Kong representatives in Washington last week said the regulations have caused a precipitous drop in 1985 orders.

U.S. Congressmen, retailers, importers and farmers have joined foreign governments to plead for at least a revision of the regulations.

Even the International Ladies' Garment Workers, anxious to have the country where apparel is sewn listed as the country-of-origin, wrote to the Customs Service to complain that the rules are "cumbersome and complex and leave many questions unanswered."

The Joint Industry Group, a coalition of industry trade groups, said the regulations issued while a worldwide effort is underway to standardise rules of origin for international trade, "represents an obvious proliferation of non-uniformity

and commodity discrimination for trade purposes."

The group's chairman, Mr David McDonald, warned that the rules may be expected to "generate concrete acts of retaliation against American exporters of other commodities."

There is no indication that the potential impact on the U.S. economy of such retaliation has been fully considered.

Farmers, too, are worried about retaliation, principally in regard to China, which failed to fulfil its commitment to buy 6m tonnes annually during 1983-84, when textile disputes were in progress.

"The U.S. pulled the rug out from under American exporters and foreign exporters by abruptly changing the rules and totally disrupting marketing arrangements," the U.S. Wheat Associates wrote to the Customs Service.

The Chinese sent a letter of protest to the State Department, ostensibly for seeing "negative results in our two-way trade" if the rules are not revised.

The new rules, however, have their adherents in the domestic industry. The made Fibre Producers Association complained of the "swelling of imports," lost business and jobs, and sees the rule as "an important major step toward the effective administration of our textile trade."

"Various foreign exporters have been using weaknesses in customs regulations to evade legitimate quotas," Congressman John Dingell wrote to President Reagan.

EEC split over imposing import quotas on Bangladesh

BY ALAIN CASS, ASIA EDITOR

THE EEC is split over whether to impose import quotas on Bangladesh which, as one of the world's poorest nations, has been struggling to establish export industries in its bid for economic development.

The situation has arisen as a result of a massive increase in the imports of cheap shirts from Bangladesh into Britain, France and Germany in the past two years.

Discreet negotiations between Bangladesh and the European Commission have so far failed to resolve the issue. Another effort to reach agreement will be made later this month when an EEC mission visits Bangladesh, but officials on both sides are pessimistic about the outcome.

Although the amounts involved are relatively small—Bangladesh's share of total EEC garment imports totals less than 0.1 per cent in volume—the issues raised by the row highlight the problems of encouraging least developed countries (LDCs) to stand on their own feet and rely less on western aid.

Britain and France are behind the move to impose quotas on shirts from Bangladesh. Imports into Britain have soared from 200,000 in 1983 to over 1.2m last year. France is faced with increases of the same magnitude.

However, West Germany which last year imported 1.7m shirts from Bangladesh is opposed to imposing import

quotas. Under the Community's present rigid rules on textile imports the imposition of quotas may be inevitable in the long run.

Bangladesh is arguing strongly that the imposition of quotas could cause massive unemployment in a new industry which employs 50,000 workers—90 per cent of whom are women—and which already accounts for over 8 per cent of the country's export earnings.

The number of workers is expected to triple by the middle of this year. A major cut could, in turn, unleash serious social unrest, officials claim.

Moreover, Bangladesh officials argue, the industry is entirely funded by the private sector. One Bangladesh official said:

"First the West asks us to stand on our two feet by promoting profitable private industrial development. When we do just that they complain."

Bangladesh is still struggling to get over huge floods which cost the country an estimated \$800m. The country is also faced with a mounting foreign debt burden while, at the same time, having a large adverse balance of trade with the EC.

The EEC move threatens substantial private investment currently being made in the shirt industry in Bangladesh. Community officials argue, however, that "only by putting on the squeeze" will Bangladesh be forced to diversify the development of its textile industry.

"The problem," said one official, "is that they have chosen to concentrate on a single item and a small number of markets."

Britain and France are deeply concerned about the increase of imported cheap shirts from Bangladesh. They point out that other countries in Asia, such as India, Pakistan, Malaysia, Sri Lanka and Hong Kong all have quotas.

If Bangladesh is allowed to increase its market penetration, these countries may press for an increase in their quotas. The EEC Commission has reluctantly imposed a three-month ceiling on the import of shirts into Britain and France from Bangladesh while the talks continue.

This was done in December under the bilateral textile agreement between Bangladesh and the Community which is negotiated within the framework of the Multifibre Arrangement.

If no agreement is reached in this month's talks, which are due to be held on February 11 in Dhaka, Britain and France will have to decide whether to ask the Council of Ministers to impose unilateral import quotas on Bangladesh.

Such a move is likely to be resisted by West Germany and other members of the Community who are not affected.

Britain has numerous aid-supported projects in Bangladesh although there is no immediate threat to these projects, officials in Dhaka say.

Airbus, Boeing battle hots up for new Thai contract

BY BOONSONG K'THANA IN BANGKOK

A SURPRISE MOVE by the Thai Cabinet to defer endorsement for the country's domestic airline, Thai Airways Company, to buy two Airbus jets signals that the battle between Airbus Industries and Boeing is heating up again.

It is the second time in less than three years that the two manufacturers are engaged in the fierce battle to sell jets to Thailand. In the first battle, Airbus won.

Airbus wants to sell two

A310 jetliners to Thai Airways, while Boeing is making an all-out effort to land a contract for a fleet of up to six B737-300s.

The move by the Cabinet, which often routinely approves proposals forwarded by Ministers, disappointed the European consortium which last September received a letter of intent from Thai Airways for the two jets, and was awaiting the Thai Cabinet's final approval.

On the other hand, it bolsters hopes for Boeing to sell more B737s to Thai Airways, which already has five B737s in service. Though there is no official explanation on the "shelving" of the proposal, it has been reported that the decision was made by the Prime Minister, Gen Prem Tinsulanonda, because of his concern that the Airbus purchase would have a significant impact on Thai-U.S. relations.

The Prime Minister told Cabinet members that the

matter should not be dealt with now, until consultation is held with the Finance Minister, Mr Somchai Woontrakul, who is due to return from an overseas trip.

Although the order by Thai Airways is not big, both Airbus and Boeing consider it an important sale that could determine the prospect for future sales in Asia.

Latest indications show that Thai Airways still has a strong preference for the A310—a

view which is supported by the National Economic and Social Development Board, the country's economic planning board which advises the Cabinet.

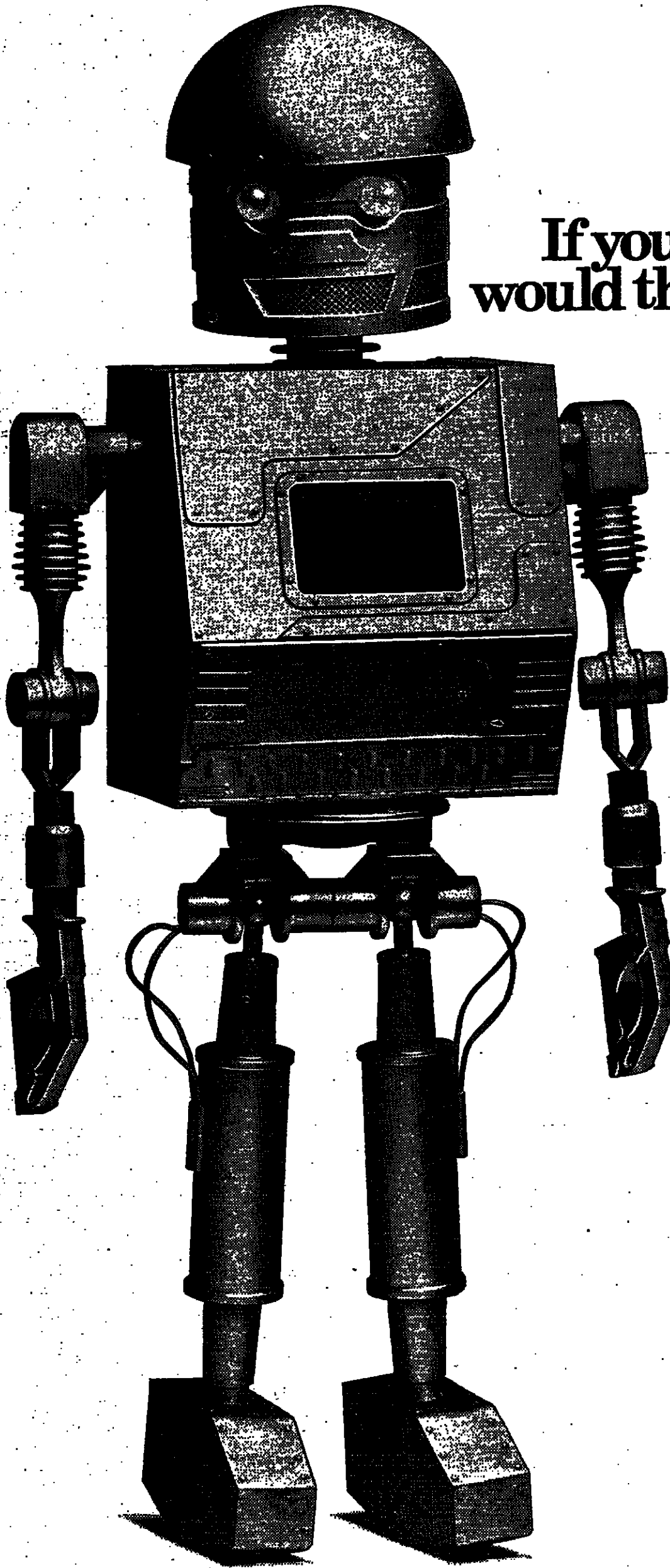
Airbus has already agreed to extend the deadline for the price offer of about \$110m (\$100m) for two A310s plus spare parts until mid-February. If the Airbus deal is approved soon, the first A310 will be delivered to Thai Airways in 1986 and the second in 1989.

Oerlikon wins £230m Egypt arms order

By John Wicks in Zurich

CONTRAVES ITALIANA, an Italian subsidiary of the Swiss Oerlikon-Bührle group, has received a £230m (£230m) order for anti-aircraft equipment from the Egyptian Government.

The order covers quantities of Contraves "Skyguard" air-control systems, Snehle 35 mm anti-aircraft field guns, and—also to be supplied by the Swiss group—U.S.-made "Sparrow" rocket launchers.



If your staff looked like this, would they get better treatment?

Frankly when it comes to care and attention the answer is probably yes. For example, how long would your company wait to do something about a photocopier that wasn't working properly, let alone a robot that was on the blink. A month?...A week?...A day?

The more important the equipment is to your company's performance the quicker it's put right. But what about your people?

How long do they need to wait for medical treatment? How long will they be working below par? And how does that affect the performance of your company?

With BUPA CompanyCare these problems are avoided.

For as little as £100* a year, which is less than the cost of a service plan on most photocopiers, you can have the benefits of prompt and efficient treatment, at a time that suits you and your employees best. Also a private room with unrestricted visiting and a phone to keep you in touch with work. And, most important of all, a speedier return to peak performance.

Find out how BUPA can improve your company's performance. Telephone us or return the coupon today.

Please tell me how my company can profit from forming a BUPA CompanyCare Group. Send this coupon now to: BUPA, FREEPOST, London WC2R 3BR. Or ring one of the numbers below.

Name _____
Position _____
Company _____
Address _____
Postcode _____
Tel. No. _____
No. of employees _____
Nature of business _____
S13/G

BUPA
CompanyCare

It makes all the difference.

*Approximate annual subscription for an employee aged 30-49 on National Scale in a company-paid group of five employees.

Central London 01-353 6212; Belfast 242424 (STD 0233); Birmingham 021-455 8821; Bournemouth 294741 (STD 0202); Brighton 808121 (STD 0273); Bristol 214511 (STD 0272); Bromley 01-466 6531; Cambridge 316613 (STD 0223); Cardiff 254422 (STD 0222); Edinburgh 031-557 3400; Exeter 77231 (STD 0392); Glasgow 041-248 7554; Harrow 01-864 5511; Leeds 444041 (STD 0532); Liverpool 051-709 6946; Manchester 061-236 7335; Newcastle 329731 (STD 0632); Nottingham 419651 (STD 0602); Oxford 52002 (STD 0865); Staines 51466 (STD 0784); Woodford 01-989 6600.

AMERICAN NEWS

The President's 1986 Budget proposals may be his last chance to tackle the deficit but doubts remain about Congress's response

Weinberger stands his ground on defence cuts

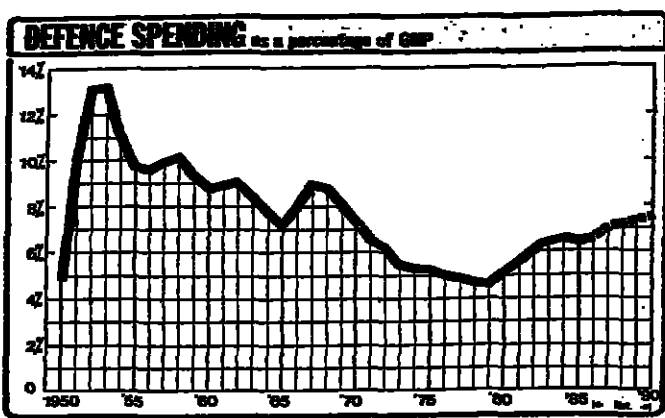
"A DRAFT dodger in the war on the Federal deficit." That was how one Republican Senator, Mr Mark Hatfield of Oregon, scathingly chided Mr Caspar Weinberger last week for his adamant refusal to contemplate further cuts in the national military budget.

The amiable but tough U.S. Defence Secretary is used to being criticised for "intransigence" when he mounts his tedious annual campaign to protect the Reagan military build-up from the budget cutters on Capitol Hill. This year, however, he faces fiercer opposition than ever before.

At a time when most other programmes are being frozen, reduced or axed altogether, Mr Weinberger is seeking a real 5.9 per cent increase in defence spending in the current year to \$313.7bn in fiscal 1986, which begins on October 1.

Outlays, on actual spending, would increase from an estimated \$248.3bn to \$277.5bn. Indeed, it is only by cutting other programmes by sums roughly equivalent to the defence increase that President Reagan has been able to achieve his aim of an overall budget "freeze" to attack the deficit.

The initial reaction among Senate Republican leaders, who have been drawing up their own alternative budget, was that if everything else was to be frozen, then defence should be frozen too. They are now backing away from that — on Sunday Mr Robert Dole, the Senate Republican majority leader, said that he felt that a real increase of 3 per cent would be about right. Nobody, however, believes that Mr Weinberger will get his 5.9 per cent — not even, it is reported, Mr Weinberger himself.



Last year the Republican-led Senate went for 7.5 per cent, the Democrat-controlled House for 3.5 per cent, and they settled at 5 per cent. If Republicans like Mr Dole are already down to 3 per cent, Mr Weinberger's figure looks like pure fantasy.

And yet Mr Weinberger has thrown himself into the fray with more relish and fervour than ever before. In the last few weeks he has conducted a virtually non-stop blitz of Congressional testifying, TV appearances and newspaper interviews, as well as about 70 private meetings with individual members of Congress.

Many of Mr Weinberger's arguments have a distinctly familiar ring. Defence spending, he maintains, is unique, "being the only part of the total U.S. budget determined solely by factors external to our nation." It should not, he says, be "tailored to fiscal needs."

There has, he argues, been no diminution in the Soviet threat or the continuing Soviet military build-up — let alone, the growing menace of international terrorism, regional instabilities and geopolitical uncertainties around the world. He has, he says, already pared spending to the bone, cutting his original request of just over a year ago by almost \$36bn as the Pentagon's contribution to the deficit reduction exercise.

As part of what he maintains is the absolute minimum necessary for U.S. national security, Mr Weinberger is asking for \$4bn for 48 more MX intercontinental missiles, \$6.5bn for another 48 B-1 strategic bombers, and \$4.7bn for a new Trident submarine and the new more accurate Trident 2 missile. Research and development, at \$59.5bn, is the fastest growing item, fuelled by an almost tripling of funds for the "Star Wars" strategic defence programme, from \$1.4bn to \$3.7bn, rising to \$4.9bn in 1987 and \$6.2bn in 1988.

The U.S. he insists, must not return to the practice of stretching out weapons pro-

spect, however, is for further rises—the budget projections show a real increase in defence spending authority of 6.8 per cent in 1987 and 7.2 per cent in 1988.

Defence outlays, which represented 6.4 per cent of gross national product in 1985, will average just over 7 per cent over the next five years—not, the Pentagon says, "disproportionate share of the nation's wealth." Moreover, says Mr Weinberger's report, while defence spending will rise to almost 35 per cent of the total federal budget in 1986, this is relatively modest compared to the over 50 per cent of 30 years ago.

Again, the Pentagon says, it is not as if it could cut all that much more even if it wanted to. In its proposed 1986 budget, for example, it paid-related items will account for 42.8 per cent of the total, and spending under past authority, already approved by Congress, for 38.3 per cent. That leaves only 11.9 per cent for new investment in research and development, procurement of weapons systems and military construction, and only 7 per cent for current operations.

This year, however, the Pentagon is again seeking a jump, 19 per cent increase in funds for weapons procurement,



Caspar Weinberger

mandate to rebuild American strength. Mr Reagan's rejection of the defence spending increase of only 3 per cent proposed by his Democratic rival Mr Walter Mondale, in the election campaign "was one of the elements that went into the renewal of his mandate," claims Mr Weinberger. But Congressmen, including the 22 Republican Senators who must face the polls again in 1986, will be looking to the next elections, not the last ones.

That is the key political reality that Mr Weinberger has against him. If the deficit is not brought under control, many Republicans fear that it could be a major issue in 1986, when one-third of the Senate and the whole of the House will be up for re-election. They also sense that the strong mood of fiscal conservatism for the military build-up has waned since the early years of Mr Reagan's first term. There is a growing feeling that national security depends on a strong economy, not much as it does on the continued amassing of weapons.

Mr Weinberger's critics would add that while he has an excellent fund raiser for the military, he has paid less attention to how the money is actually spent. Despite Mr Weinberger's claims that

"aggressive management" has reduced costs and increased competition for defence contracts, there are many on Capitol Hill who believe that waste and cost overruns are still endemic in Pentagon procurement.

Mr Weinberger has not always helped his own case. He has provoked criticism with his claim that defence cuts do not help to reduce the budget deficit, and last week he angered a number of Congressmen by suggesting that those who sought defence cuts were being unpatriotic, almost to the point of treason, by seeking to "weaken the security of the country." And there is a general feeling on Capitol Hill that Mr Weinberger has been exaggerating—a feeling encouraged by last week's "goof" when he claimed that the Soviet Union had shot down one of its own stray missiles over Finland just as his own experts were denying it.

"How often do you cry wolf?" asked Mr Hatfield, who is also chairman of the Senate Appropriations Committee. Congress, he pointed out, had not met all of the Pentagon's requests in the past and "it hasn't meant doom."

In fact, Congress has only cut an average of about \$15bn a year from Reagan Administration requests, with much of the savings coming from lower inflation. A recent Library of Congress study estimated that Congress has approved almost 97 per cent of the military funds requested by the Administration since March 1981. And it has not, so far, axed any major weapons systems.

Mr Reagan, for his part, is once again supporting Mr Weinberger, as he has every year in the past, even at the cost of failing to reach his deficit reduction targets. "We've squeezed that apple pretty good," he said earlier this month, in giving support against further defence cuts. "This time, however, Congress is no longer talking about squeezing the apple, but taking a large bite out of it."

HIGHLIGHTS OF CUTS

Aggregate spending freeze 1986 spending excluding debt service is \$904bn—identical to the estimated 1985 level. Within this aggregate freeze, there are hundreds of policy-based increases and decreases at the programme account level.

Programme level policy measures used to achieve aggregate spending freeze:

- Selective cut-of-living freezes: Military and civilian retirement, Federal pay and minor non-means-tested programmes. Food stamps, SSI, social security and veterans compensation and pensions exempted from cost-of-living adjustment (COLA) freeze.
- Discretionary programme budget authority freezes: Applied to nearly every non-defence account as a minimum cut from current services. Selective accounts in the "plus" category involve additional, deeper policy-based reductions.
- Major programme reforms: Includes entitlement and other mandatory spending changes in programmes like student aid, veterans health care, farm price supports, Federal retirement and navigation. These reforms produce savings substantially in excess of a freeze.
- Selective programme terminations: 25 major programmes and numerous minor ones are eliminated entirely. Examples include Amtrak, General Revenue Sharing, Small Business Administration (SBA), Export-Import Bank Direct Loans and Urban Development Action Grants (UDAG).
- A 10 per cent administrative expense cut: Applied uniformly to nearly all non-defence operating and salary expense accounts. In many cases, actual savings will be achieved through Grace Commission recommendations.
- Selective cuts beyond freeze level: Based on policy merits, many programmes of lower priority are retained but reduced substantially below the 1985 level. Examples include a 10 per cent cut in energy R and D programme, and a 40 per cent cut in soil conservation programmes.

	FEDERAL FINANCES AND THE GROSS NATIONAL PRODUCT		DEFICIT	
	GNP	Receipts	Outlays	Debt
	\$bn	\$bn	\$bn	\$bn
1970	2,624.0	15.9	20.2	2.4
1971	2,754.0	20.2	22.5	2.7
1972	2,884.0	20.2	24.5	4.3
1973	3,014.0	18.6	28.1	8.4
1974	3,144.0	18.6	28.8	10.2
1975	3,274.0	19.0	28.8	9.8
1976	3,404.0	19.5	29.5	10.0
1977	3,534.0	19.5	29.5	10.0
1978	3,664.0	19.5	29.5	10.0
1979	3,794.0	19.5	29.5	10.0
1980	3,924.0	19.5	29.5	10.0

1985-1986 estimates . . . assuming proposals in 1986 budget message are enacted.

THE GROWTH OF FEDERAL DEBT AND NET INTEREST PAYMENTS		\$bn		1980		1985		1990	
Federal debt	\$14.0	1,841.0	2,074.0	2,308.0	2,547.0	2,764.0	2,976.0		
Federal interest	(net)	52.5	130.4	142.5	152.8	159.2	167.6	171.7	

1985-1990 projected on economic and spending assumptions in 1986 budget message.

ECONOMIC FORECASTS*		1984		1985		1986		1987		1988		1989		1990	
GNP (nominal)		3.2	3.5	3.5	3.3	3.0	2.4	2.4	2.4						
GNP (real)		5.6	4.0	4.0	4.0	4.0	2.8	2.8	2.8						
Consumer prices		2.5	4.3	4.3	4.1	3.5	2.5	2.5	2.5						
Unemployment		7.1	6.9	6.5	6.5	6.2	6.0	5.7	5.7						
Interest rates (91-day Treasury bills)		8.8	8.1	7.9	7.2	5.9	5.1	5.0	5.0						

*Percentage changes (fourth quarter to fourth quarter), except unemployment and interest rates.

MAJOR BUDGET COMPONENTS		\$bn		President's budget		1985	
Component	Enacted 1985	1986	1987	1988	1989	1990	
Social insurance programmes	\$296.3 (30.9%)	\$309.5 (31.8%)	\$328.5 (32.0%)	\$351.1 (32.1%)			
Means tested benefits	\$69.9 (7.3%)	\$69.1 (7.3%)	\$71.6 (7.0%)	\$75.5 (6.8%)			
Other domestic programmes	\$179.4 (18.7%)	\$179.2 (18.7%)	\$175.3 (17.3%)	\$175.5 (15.9%)			
Defence and national interest	\$263.1 (27.5%)	\$312.2 (32.2%)	\$348.1 (33.9%)	\$388.2 (35.2%)			
Net interest payments	\$120.4 (12.6%)	\$142.6 (14.6%)	\$152.9 (14.9%)	\$168.2 (15.5%)			
Total Federal outlays	\$959.1	\$973.7	\$1,026.6	\$1,094.3			
* Share of budget total							

SUMMARY OF SPENDING REDUCTIONS*		Budget Savings		Total %	
Reduction Category	1986	1987	1988	% of Total	% of Total
1 Major programme	16.9	26.2	32.5	75.6	32
2 State/Local Development & Social Services	2.8	5.7	6.5	15.9	7
3 Transportation Programs & Subsidies	2.3	4.5	6.4	12.5	6
4 Agriculture Reforms & Subsidies	5.6	10.5	12.7	28.8	12
5 Education, Commercial & General Subsidy Programs	5.8	8.1	9.5	23.4	10
6 Social Programme Terminations	0.9	1.8	2.1	4.3	2
7 Other Domestic Freezes and Cuts	3.6	7.2	10.0	20.7	9
8 Defence Savings	2.7	10.2	11.2	28.8	12
9 Debt Service Savings	3.2	8.2	15.5	26.0	12
Total Savings	50.8	127.1	155.3	235.5	100

*Reductions from current forecasts without policy changes.

Reagan's popularity crucial in high stakes game

BY STEWART FLEMING IN WASHINGTON

IF President Ronald Reagan is even to achieve his long proclaimed goal of shrinking the Federal Government and bringing soaring budget deficits under control, his best and probably his last chance will be in the outcome of the political battle which began officially yesterday over the shape of the 1986 budget.

With his electoral triumph behind him, the President has the chance to use his formidable political popularity to adopt what is clearly a controversial strategy for checking the ominous growth of federal debt and for trying to reduce the debilitating \$200bn a year budget deficits.

He has sent Congress a proposal which even his party realists say is politically unrealistic. Alongside a \$31bn increase in defence spending, he is proposing a combination of a freeze or draconian cuts in most of the Government's outlays with the objective of reducing government spending as a share of Gross National Product from 25 per cent in 1985 to 21 per cent in 1988.

The question arises whether the President is making the best use of the window of opportunity offered by the American electoral cycle. The argument goes that this is the only year that Congress has the political room for manoeuvre to take the difficult and unpopular decisions which would attack the struc-

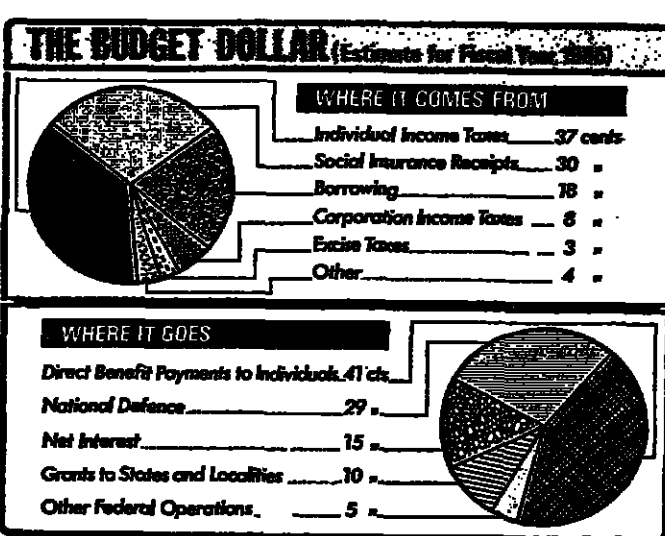
tural deficit problem. Next year, with looming mid-term Congressional elections and the Republican majority in the Senate in the balance, few political observers can imagine a Congress willing to risk the electoral retribution which might be visited by cutting Federal handouts.

By 1987, Mr Reagan will be in the second half of his final term of office and probably unable to muster the political clout needed to impose his budgetary will.

Nonetheless, his proposals are a painful nudge for Congress to grasp this year. Interest groups across the country have just over a year to get their act together at Mr Reagan's intention to achieve target savings of \$75.5bn over three years by curbing spending on such social programmes as medical help for the elderly, child nutrition and subsidised housing.

The Reagan era is also levelled at \$15bn of state and local government subsidies and a \$23bn cut in subsidies to business and commercial interests. The President's motives for tackling the budget issue in this way are hotly debated. Some question the depth of his concern about the deficit after three years during which predictions of the threat it poses to the economy have been belied by events.

Others, however, maintain that Mr Reagan is concerned, and is well aware that if a "quick-fix" of the deficit is suddenly needed because of economic problems, Congress would be unlikely to act. That could undo what Mr Reagan views as one of his



greatest successes, the first term tax changes which the Government estimates will save Americans some \$650bn in taxes between 1984 and 1988.

Thus it is argued the President is simply following his traditional negotiating strategy of staking out the toughest possible bargaining position before the battle starts. In effect what he has done is to try to land Congress with the job of making the politically unpopular decisions—particularly on social security spending which would affect over \$5m American pensions—partly to try to minimise the cuts in defence spending which he knows he must ultimately concede in order to win some of the other budget cuts he is seeking.

This interpretation of the Administration's strategy is

born out implicitly by the economic analysis in the budget documents themselves which are starkly realistic about the dangers the U.S. is facing.

While claiming credit for helping to slow inflation to around 4 per cent, the Administration says that the value of the dollar has helped to subdue inflation. But it adds that "the dollar cannot continue to rise indefinitely" that current inflation rates are a far cry from "price stability" and that never in the post-war period has the U.S. enjoyed so long a period of uninterrupted economic growth without an acceleration of the pace of inflation.

The budget message also notes the dangers inherent in the country's dependence on huge inflows of foreign savings

to finance public and private capital needs. It warns that "should foreigners attempt to remove their purchases of dollar assets while we are still running a large current account deficit . . . the inflation rate (and interest rates) might temporarily rise as the dollar's exchange rate falls" and economic growth could slow.

In a break with the propaganda which came out of the Administration in 1984, the budget message has high interest rates with the huge budget deficit, and it expresses concern about the long term implications for productive private capital formation of the rapid accumulation of federal debt.

Government bonds are not backed by real capital and do not represent any increment in capital for society . . . this is the essence of the crowding out problem. For a given level of private wealth the more that is accounted for by Federal Government debt the less will be the economy's total real capital stock.

The budget document even takes aim at the fervent supply side economists who have been among President Reagan's staunchest supporters. Economic growth alone, it implicitly states, will not solve the budget deficit problem.

To those who have suggested that the budget planners should actually limit real growth for the rest of the decade rather than the 4 per cent they have used, the budget points out that in the 1980s rapid growth of around 4.5 per cent a year will much more than offset the inflationary pressures, that the long term economic projections

already include optimistic assumptions about employment growth, and that the assumed rate of growth of productivity of 2 per cent a year which underlies the assumptions is already much higher than in the 1970s.

"There is no hard evidence at all that (productivity) is approaching the much more rapid rates that would be required for real GNP to grow at 5 per cent a year or faster," the message says.

As for the proposal that a more stimulative monetary policy could clear the way for a faster economic expansion, the budget says "it is wrong to assume that because a stimulative monetary policy can produce higher rates of real economic growth in the early stages of a business cycle recovery it is capable of producing rapid growth at any stage of the cycle."

Thus the budget itself spells out clearly what most economists are saying and many on Capitol Hill fear, namely that America is walking along the edge of an economic precipice, accumulating deficits and debt at an unsustainable pace with ominous implications for the American and world economies. The question which has yet to be asked, however, is whether after the failure of the past three years, the American political system can, in the absence of a palpable crisis, finally take the tough decisions which most agree are needed. Failure by a President at the height of his influence and popularity to achieve one of his highest stated priorities will revive questions about the power of the office and cast a pall over the financial markets.

Dissident Peronists oust leaders

BY JIMMY BURNS IN BUENOS AIRES

THE PERONISTS, Argentina's major opposition grouping, yesterday suffered a historic split when a majority of dissident members voted overwhelmingly to oust the bulk of the party's leadership.

At the end of a hectic two-day meeting near the northern town of Santiago del Estero, over half of the Peronist party's 685 person convention agreed to set up a provisional national council to represent the party in the mid-term parliamentary election on November 3.

The dissidents, who include 10 provincial governors, most of the party's parliamentary group moderate trade unionists and student groups, also agreed to implement wide ranging internal reforms.

These include a system of indirect voting by militants aimed at making the future leadership more responsive to the party's grassroots along broadly social democratic ideological lines.

The move challenges the orthodoxy and personal patronage that has guided the Peronist party ever since it was founded

in 1947 by the late General Juan Peron. It brings to the surface a bitter power struggle which was stimulated by the party's crushing electoral defeat in October 1983.

The dissidents meeting was an open snub of the party's "official" acting leadership which on Friday held a poorly attended Congress of its own in Buenos Aires.

Less than half of the party's national convention turned up to vote in favour of a motion backing the current leadership's efforts to secure the unity of the party's rival factions.

The weekend development means that the Peronists would almost certainly be embroiled in legal battles in the coming weeks as each faction argues its legitimacy before the electoral court.

Most political observers believe that the split will ensure a sweeping victory for the ruling Radical Party of Sr Raul Alfonsin when over half of the Chamber of Deputies comes up for re-election in November.

Nevertheless, the Peronist

controversy could undermine the Government's efforts to secure a social contract on prices and incomes. It is likely, the leadership struggle is passed down into the Peronist-dominated trade union movement.

Contrary to what was expected, the dissidents did not at the weekend debate a formal motion of no confidence in Sr Maria Estela "Isabelita" Peron, the general's widow, who has exercised an ineffectual titular leadership from Madrid since she was first exiled there by the former military regime in 1981.

However, the dissident challenge to the party's Buenos Aires-based acting leadership is an indirect rebellion against the kind of orthodox policies implicitly favoured by General Peron's only surviving political heir.

The acting leadership challenged by the dissidents include Sr Lorenzo Miguel, one of the few union bosses surviving from the Peron era, and the recently re-elected Secretary General of the powerful Metal Workers Union.

Ecuador 'to raise future loans on normal basis'

BY PETER MONTAGNON AND HUGH O'SHAUGHNESSY

ECUADOR WILL no longer need to force commercial bank creditors to grant it loans following this year's agreement to reschedule \$4.3bn (£3.8bn) in debt falling due between 1985 and 1989, Sr Francisco Sotelo, Finance Minister, said in London yesterday.

Future loans will be raised on a normal voluntary basis only although the amounts needed will be very small and Ecuador will turn mainly to organisations such as the World Bank and Inter-American Development Bank to meet its financial requirements, he said.

This year's current account balance of payments deficit is projected at \$208m and the payments balance should fluctuate close to that level for the rest of the decade, reaching \$257m in 1990, Central Bank figures show.

Sr Sotelo said the forecasts assume an oil price of \$38 per barrel, \$1 more than the price Ecuador is now receiving. But this shortfall is more than offset by an overly conservative forecast of interest costs.

Ecuador has assumed an interest charge of 13 per cent on its \$7.5bn foreign debt, about 21 per cent more than it is actually paying.

The interest margin on its 12-year rescheduling has been set at 11 per cent over current currency rates. In addition, Ecuador is to receive a \$200m bank loan negotiated last year and the maturity of its \$700m short-term trade finance facility is to be extended for a further year.

As part of its return to voluntary borrowing, Sr Sotelo said that Ecuador would like to raise \$200m from the sale of assets from commercial bank creditors.

Ecuador's new President Leon Febres Cordero has adopted a much less radical approach to the foreign debt issue than his predecessor. But there is no practical possibility of taking a common approach where debtors negotiate collectively," Sr Sotelo said.

Debtor nations to seek summit

BY ROBERT GRAHAM IN SANTO DOMINGO

America's 11 leading debtor nations gathered here this week are expected to co-ordinate their position on holding a summit with the industrialised countries to consider the region's \$350bn (£313bn) foreign debt.

This is the second time that the 11 countries have met since first defining a common debt position in Cartagena, Colombia, last June.

Experts began meeting here yesterday and sessions of foreign and finance ministers will be held on Thursday and Friday.

At the last meeting in Mar del Plata, Argentina, in September, the group—Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Peru, the Dominican Republic, Uruguay and Venezuela—agreed to press for a summit in the first half of 1985.

The main difficulty facing the delegates is the so far half-hearted response by the industrialised nations towards their summit idea.

The big debtor countries, Brazil and Mexico, which have so far acted as a moderating force, are anxious that nothing

be done until April. The Brazilian delegation said yesterday it was best to await the outcome of reports being prepared for the IMF Interim Committee, and the World Bank Development Committee, due in April.

These reports followed last autumn's IMF and World Bank meetings and were a belated response to the discussions held in London at the June economic summit of industrialised countries.

Awaiting the outcome of these committees makes it difficult to arrange a summit before the summer, and some of the delegations are uncertain whether the industrialised top level meeting or a meeting that will be specifically concerned with Latin American debt.

This is why more radical countries like Argentina, Bolivia and Peru are keen to keep up the momentum and try to ensure that this meeting of the "Cartagena group" obliges the industrialised countries to take their problems seriously. The difficulties faced by

Latin America's smaller debtors are underlined by the plight of the host country. Last year 60 people were killed in riot during

response OF CUTS

... freeze
... to \$804bn—identical
... aggregate freeze, the
... decreases at the prop
... used to achieve approx
... case
... and civilian re
... -tested programme
... veterans compensa
... g adjustment (COLA)
... minority freeze. Appl
... a minimum cut from c
... "class" category inclu
... entitlement and other
... nes like student aid, re
... deral retirement and c
... substantially in case
... 25 major programme
... entirely. Examples
... Small Business, Adjus
... Loans and Urban De
... e cut: Applied univer
... salary expense reduc
... chieved through Grant
... based on policy merits
... retained but reduced to
... include a 10 per cent
... Grants, 10 per cent on
... a 40 per cent cut in

PERCENTAGE OF GNP	Outlays	Deficit
20.2	0.3	
21.0	2.9	
21.5	2.2	
21.5	4.2	
22.1	6.4	
24.8	5.2	
22.5	5.7	
22.6	4.3	
22.2	3.6	
22.2	2.9	

PROPOSALS IN 1988	1988	1989
1.0	2 547.6	2 784.0

DEBT	1988	1989
1.8	159.2	147.6

CASTS	1988	1989
1.5	8.5	8.0
1.0	4.0	4.0
1.3	4.1	3.8
1.8	6.5	6.2

COMMENTS	1988	1989
1.9	7.2	5.9

President's budget	1987	1988
1	\$328.6	\$
2	(22.6%)	(22.6%)
3	\$71.6	\$
4	(7.0%)	(7.0%)
5	\$125.3	\$
6	(12.2%)	(12.2%)
7	\$249.1	\$
8	(35.9%)	(35.9%)
9	\$132.9	\$
10	(14.9%)	(14.9%)
11	\$1,026.6	\$

REDUCTIONS	1988	Total
1	22.3	135
2	6.3	139
3	6.4	135
4	12.7	213
5	5.7	234
6	2.1	45
7	16.6	297
8	10.2	241
9	15.5	280
10	10.5	234
11	10.5	234

without policy cuts	1988	Total
1	22.3	135
2	6.3	139
3	6.4	135
4	12.7	213
5	5.7	234
6	2.1	45
7	16.6	297
8	10.2	241
9	15.5	280
10	10.5	234
11	10.5	234

summit

... American smelter
... underlined to the
... fast economy, the
... were killed in the
... protest
... ed agreement
... week
... labour union
... of the price
... 14-hour contract
... and
... cent contract
... and public
... are
... 5 said
... other sectors
... by the union
... hour
... ment of a
... 2.50 per cent
... industrial

line given
e to appeal
LAND Express
plans to start
the air service
the Airline
week given
the Court in
Court in the
the Court in
the Court in
the Court in

UNLESS WE CAN MAKE A TEAM, WE'D RATHER NOT MAKE THE INVESTMENT.



Too often, no sooner has an investment company completed a deal, than it's good luck.

And goodbye.

But our attitude is just the opposite. We want to contribute to your success for years to come. For this reason, our financial brains must also be business experts. It is a policy which works.

Witness the 8,000 businesses with whom we have enjoyed long-term relationships.

We're well equipped to add to that number.

Within 3i, we deal with large projects and are prepared to back any one company with up to £35 million or more; we have our

Ventures Division who specialise in fast-growing high-technology



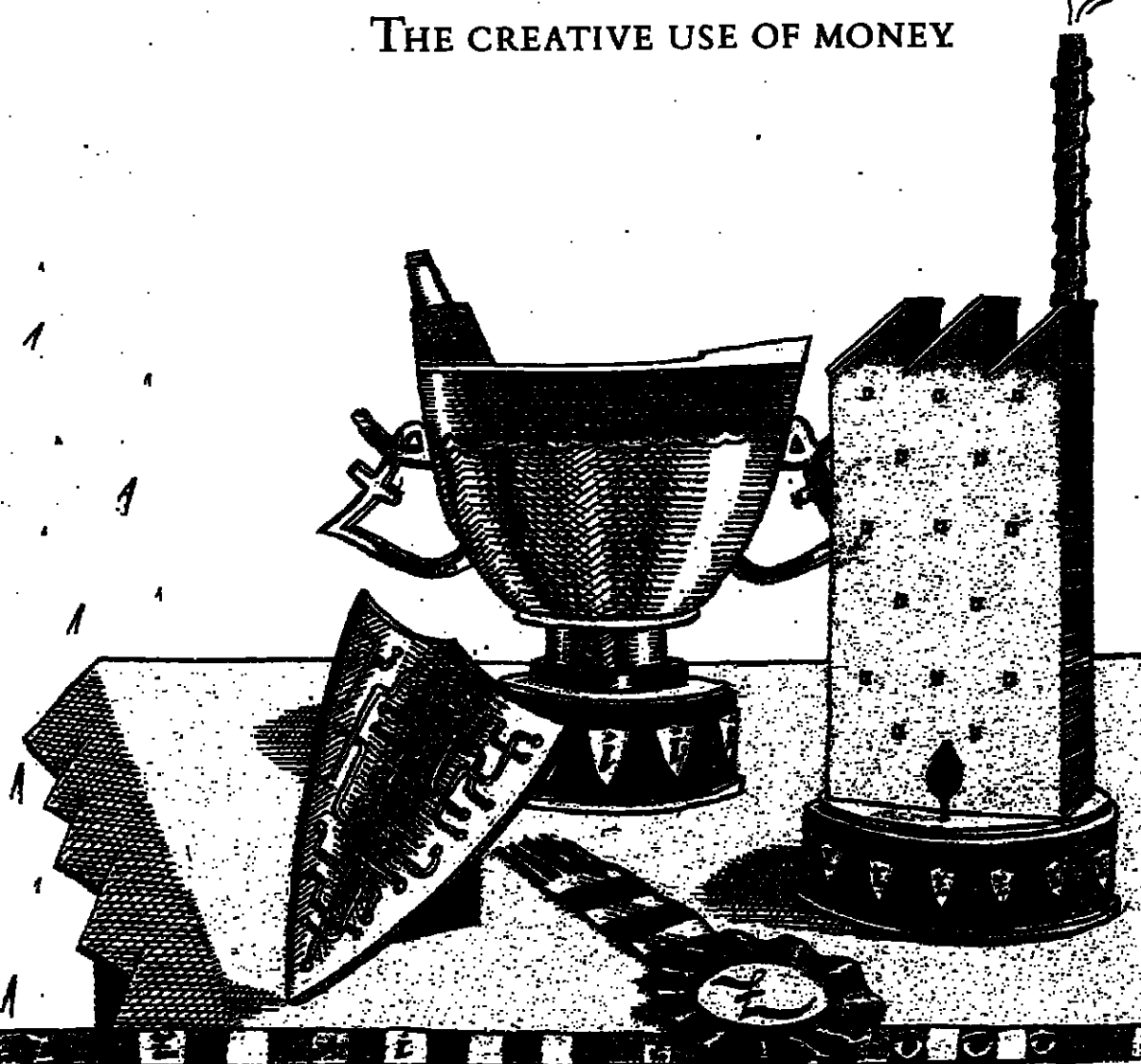
businesses; as well as ICFC, whose understanding of smaller companies' problems is unique.

So we're ready for all comers.

But there has to be a proviso. Namely that, like us, they believe in something very important.

The team spirit.

THE CREATIVE USE OF MONEY



A FINANCIAL TIMES SURVEY INTERNATIONAL CAPITAL MARKETS

MARCH 18, 1985

The Financial Times is planning to publish a Survey on International Capital Markets in its issue of March 18, 1985. The provisional editorial synopsis is set out below:

INTRODUCTION Deregulation of domestic markets and continuing volatility of interest and exchange rates have encouraged a period of rapid change in the international capital markets. Following the abolition of withholding tax the U.S. Treasury has borrowed for the first time in Europe; a new market has developed in syndicated Euronotes, and debt swaps are bringing bond markets in a range of currencies much closer together.

Editorial coverage will also include:

- The World Economy and Payments Trends
- Interest and Exchange Rates
- The Developing Country Debt Crisis
- The Bond Market
- The City Revolution
- Tokyo and New York
- New Techniques and Instruments
- The Syndicated Loan Markets
- Specialist Financing

Copy Date: March 4, 1985

For further details and advertisement rates, please contact:

Nigel Pullman

Financial Times, Bracken House

10 Cannon Street, London EC4P 4BY

Tel: 01-248 8000 Ext. 4063 Telex: 885033

FINANCIAL TIMES
EUROPE'S BUSINESS NEWSPAPER

The size, contents and publication dates of all Surveys appearing in the Financial Times are subject to change at the discretion of the Editor

UK NEWS

£ worries exaggerated, says Bank governor

By Our Financial Staff

WORRIES IN financial markets about the impact of a strong dollar and oil price uncertainties on sterling "have been greatly exaggerated," Mr Robin Leigh-Pemberton, Governor of the Bank of England said last night. The authorities' reaction in pushing interest rates up sharply should, however, have left no doubt about their determination to conquer inflation, he added.

Mr Leigh-Pemberton, who was addressing the annual banquet of the Overseas Bankers Club, also claimed that the gyrations of the foreign exchange markets "do not have their origins in developments in the real economy, where we continue to make steady progress."

The Governor also saw progress in resolving the international debt situation, where many countries had got their foreign payments into better balance. Much of it had been helped by the burgeoning U.S. trade deficit and falling dollar interest rates, which might not persist. He also saw less evidence of internal adjustment. Many programmes instituted by the International Monetary Fund (IMF) were not being observed, and arrears to the IMF were growing.

He was also concerned about the growing practice among banks competing for international loan business to accept slim margins or make off-balance-sheet commitments without proper capital backing.

"Bankers would be well advised to examine closely the extent of these risks and to consider carefully the appropriate price to charge of them," he said.

Gas reserve estimates may be 20% too low

BY IAN HARGREAVES

A SIGNIFICANT upgrading of Britain's natural gas reserves is expected to be disclosed shortly by the Government, underlining the official view that Britain does not need a large tranche of imported gas to replace supplies from the Norwegian Frigg field.

The record level of drilling in the North Sea last year, much of it in the gas-prone area of the southern basin, has apparently convinced Department of Energy statisticians that the gas reserve figures published last May in the Brown Book on oil and gas resources are about 20 per cent too low.

The last Brown Book put remaining proven and probable UK Continental Shelf reserves at 40.6 trillion cubic feet (tcf). In addition, 19.1 tcf of gas was identified as possible and between 6.5 tcf and 20.1 tcf as likely to be available on statistical grounds, from undiscovered fields.

The revised figures will take the Government closer to estimates of gas reserves made by the oil companies, which have been leading the argument against British Gas's plan to import \$30bn of gas from Norway's Sleipner field.

Although it is difficult to compare rival estimates of UK gas reserves, because they are compiled in different ways, the Brown Book estimates have generally been at the bottom end of the range. British Gas's own figures are in the middle of the range and British Petroleum's at the top.

Demand for gas is running at 1.8 tcf a year, suggesting that the present UK proven and probable reserve base has a life, unsupported by imports, of between 25 and 30 years.

The Government will undoubtedly use its new figures to bolster its argument against the proposed Sleipner deal. Sleipner contains about 7 tcf of gas.

Another deadline passed in the Sleipner saga last week, when the Government failed to honour an undertaking given privately to Mr Kaare Kristiansen, the Norwegian

Energy Minister, that Britain would make up its mind about the Sleipner deal by the end of January.

Indications in Whitehall yesterday, however, were that a decision should come in the next few days. The initial commercial contract between British Gas and Statoil was signed in mid-February last year.

British Gas does not accept that an upgrading of UK reserves undermines the case for Sleipner. It argues that in a gas market as large as Britain's, a large import cushion is desirable. It also expects gas demand to rise from 1.8 tcf a year to more than 2 tcf a year.

Some oil companies argue that British Gas wants the large Sleipner import mainly in order to hold down the price it has to pay for UK gas supplies, and that this in turn inhibits development of UK gas fields.

With tax revenue from oil production expected to peak next year the Treasury is anxious that the gap in the 1990s is filled as much as possible with tax revenue from UK gas.

Shell/Esso to develop Tern

BY DOMINIC LAWSON

APPROVAL for a £1bn North Sea oilfield development is to be announced later this week by the Government.

The Shell/Esso North Sea joint venture will be given approval to develop the Tern oilfield, which contains recoverable reserves of about 155m barrels of oil and 40bn cubic feet of gas.

Oil analysts at stockbrokers Wood Mackenzie estimate that the field might be producing oil in early 1989, and reach a peak of 50,000 barrels a day. That would make Tern one of the biggest North Sea oilfield developments to be announced in the past few years.

The Tern field was discovered about 75 miles north east of Shetland, in 1975. However, it has been subject to a certain amount of controversy since then. In 1982 Shell publicly shelved the project, and in large measure blamed that decision

on what it saw as a too severe North Sea tax regime.

The changes in North Sea oil taxes in the 1983 budget — giving greater tax relief for new field developments — are, therefore, thought to have influenced the present decision to develop the field, which has an unusually complex reservoir.

The Tern oilfield platform is expected to be of conventional steel design.

Telecom will have '£1.5bn for acquisitions'

BY JASON CRISP

BRITISH TELECOM (BT) would have £1.5bn to spend on acquisitions over the next four years even if it keeps its borrowings at their current level, according to stockbrokers de Zoete & Bevan.

In a new report on British Telecom, de Zoete has increased its profits estimate significantly. It expects BT pre-tax profits to rise to £2.47bn in the financial year to March 1989 compared with the

£2.13m it predicted last year.

Even so, the rate of growth in profits is expected to decline year by year and will only just be 10 per cent in 1989 compared with 19.8 per cent forecast for this year.

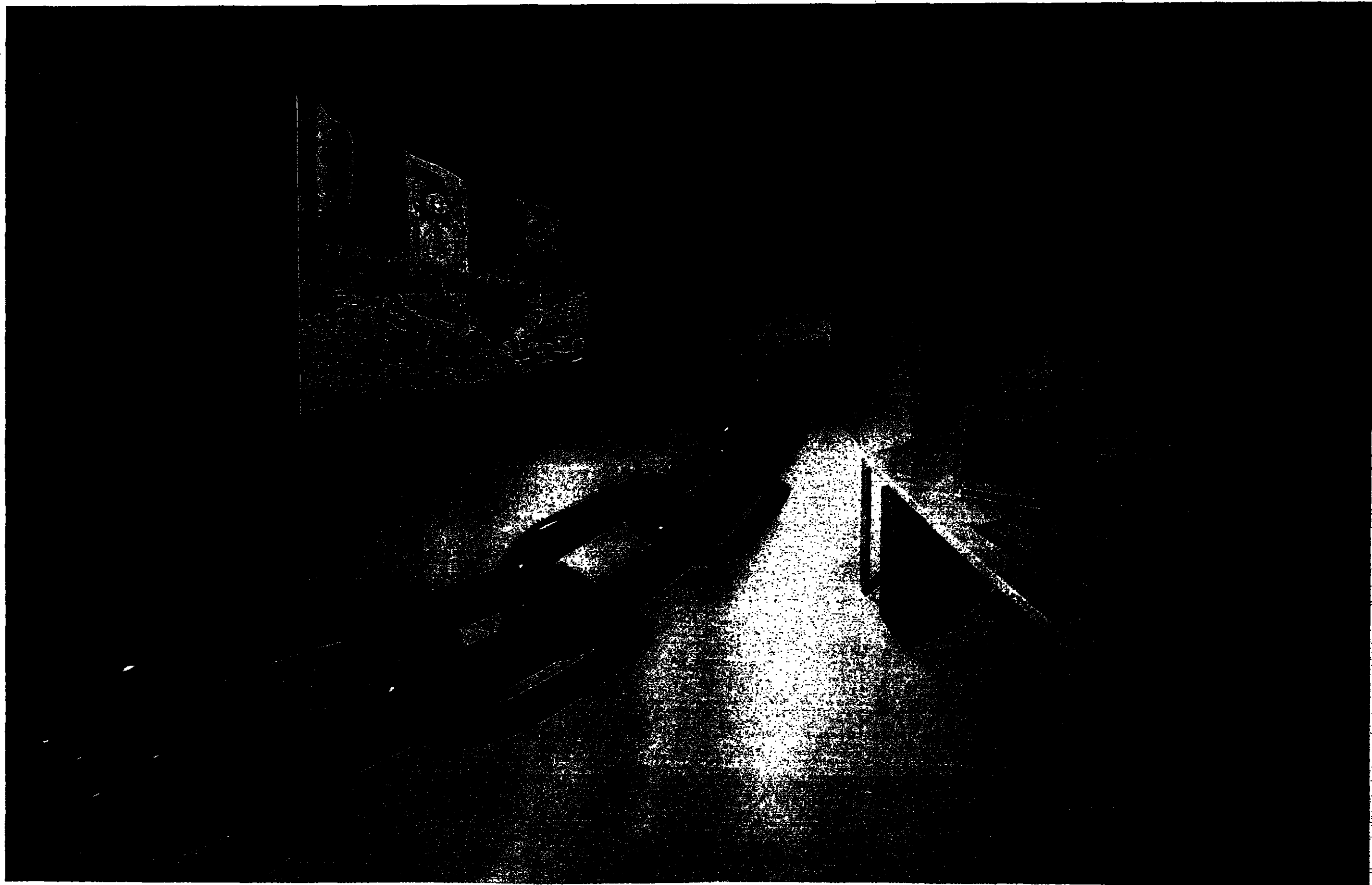
De Zoete was one of the brokers to the BT offer last year and produced what was probably the most comprehensive report on the company last June. It also made the

most accurate prediction on BT's half-year figures announced last month.

De Zoete has increased its forecast because of lower expectations in earnings. In addition, it increased the profits forecast in pension contributions that became clear only in the prospectus.

The report says: "Although our revenue forecasts are virtually the

same as before (9 per cent per annum) the mix of revenues is much improved. A higher proportion will now come from less competitively exposed areas such as local calls and line rentals and smaller proportion from national (trunk) calls and BT International. As a result of the changed mix of revenues, the earnings are now of better quality, BT will be less exposed to 'cream skimming' from competitors."



UK NEWS

Westland lobbies for its future

Bridget Bloom, Defence Correspondent, reports on the problems of the UK's only helicopter maker, which is pressing for defence orders to fill a potential sales gap.

WESTLAND, Britain's only maker of helicopters, is putting the Ministry of Defence (MoD) under intense pressure to buy its new troop-transferring Westland 30 (W30) aircraft.

"We are conducting high-pressure lobbying with the MoD and anyone else who will listen," the company said yesterday, acknowledging that a sale might be very important for its future. "But we are not asking for charity, we are playing to win."

Westland's immediate problem - which led to weekend reports that the company was facing a crisis and the MoD was considering a rescue - centres on how to fill a gap in its production line for three or four years from late 1986. For the next 18 to 24 months, Westland has orders for the Sea King, Lynx and Gazelle helicopters, which were developed 15 years ago and are being phased out.

The company believes its future after 1986 will be assured through sales of its new aircraft known as the EH101. That is being developed in both a military and civil version with Agusta of Italy. The prototype will fly in 1986, but production will probably not begin in earnest until 1988.

Westland - which is based in Yeovil, south-west England - has been aware of the approaching gap for some time. It claims it is stepping up pressure on the MoD to buy the W30 because it believes that Mr Michael Heseltine, the Defence Secretary, is within months, if not weeks, of taking a final decision.

It remains to be seen whether that is the case. Certainly Westland

is aware that its prospects of landing a contract are complicated by the minister's desire to see greater competition within defence contracting.

Almost a year ago, Mr Heseltine asked not only Westland but its competitors to submit proposals for what is known as Air Staff Target (AST) 404, which would replace the RAF fleet of about 60 ageing Wessex and 40 Puma helicopters deployed to ferry troops. The contract might be worth, with spares and training, as much as £500m.

The companies that responded were Short Brothers of Belfast, in association with the U.S. Sikorsky company, offering the Blackhawk (which the RAF apparently likes) and the French company Airbus Helicopters, offering an advanced version of its Puma.

Whether or not Westland is facing a crisis, orders from the MoD for the W30 would make a great difference to its fortunes over the next few years. The helicopter market has been in the doldrums for several years and last year Westland's group turnover was down from £25.9m to £24.2m.

The decline - by £1.7m to £21.8m - occurred wholly in the helicopter and hovercraft division. The technologies division showed a

slight rise in sales from £78.3m to £81.7m. Pre-tax profits of the group fell from £20.6m to £2.7m.

Last year's annual report noted orders on the books of some £87m, or sufficient for around two years' work. But the report also indicated that the helicopter division was working below capacity: 12 Sea Kings were delivered; a near-capacity figure due to replacement orders from the MoD to make up for losses in the Falklands war. But 24 Lynx could have been built, against the 12 that were delivered, while only seven Gazelles were delivered.

The company says that, by 1987, its orders from the MoD, without the W30, are likely to be to more than 18 per cent of the level in the last few years. The MoD accounts for 90 per cent of its helicopter business.

Westland hopes to produce the W30 both as a civil and military aircraft. The Department of Trade and Industry has invested £40m in its development (and is reportedly backing Westland's case to the MoD). The company estimates the MoD's underlying investment at about £130m and its own at £20m. Westland has sold the W30 to civil airlines, including British Airways, and could produce one a month at least from now until 1989. The com-

pany argues that even a firm commitment by the MoD to buy later would help by enabling it to secure export orders (defence companies say equipment is more saleable if it has been bought by the British armed services). The only existing order, not yet certain, is for 21 from India.

The MoD yesterday would only say that it understood Westland's position but that a decision had not yet been made.

For Mr Heseltine, Westland's predicament poses a dilemma. In the old days of relatively high defence expenditure, with concern for Britain to retain a broad-based defence industry, Westland would have won the contract.

It might still. The company announced in August that it would lay off 700 workers over the next 12 months: 300 have gone and 400 are to go later this year. If it does not win the W30 orders, probably more will have to be laid off.

Mr Heseltine, however, has been pursuing policies over the past two years that are expressly designed to make defence contracting more efficient, particularly by introducing more competition. Hence the Defence Secretary's insistence on asking for proposals from Westland's rivals.

The policies are also designed to rationalise Britain's defence industrial base, particularly by encouraging collaborative production with European countries. On another longer-term project for RAF for the 1990s - the acquisition of a light attack helicopter - Mr Heseltine is keen to encourage British participation in either an existing Italian venture, or the planned Franco-German PAH 2 project.

There are also suggestions that Mr Heseltine may decide not to buy replacements for the Wessex and Pumas preferring to wait until a co-operative venture can be worked out.

Those who suggest he might take that course also note the RAF's strained budget, caused principally by cost overruns on the Nimrod early warning aircraft.

For the present, Mr Heseltine is caught in a dilemma: Westland may put in a cheaper bid than either Airbus or Short/Sikorsky, in which case its production line gap can be plugged and the demands of competition met. But there is no way the line can be filled if the collaboration policy is to be carried out fully.

There is as yet no indication what Mr Heseltine will do, although there are those who suggest that he may award Westland part of the contract, and then insist that the company joins its European counterparts to design and build a common transport helicopter for the 1990s.

Railway station sites offered to retailers

FINANCIAL TIMES REPORTER

BRITISH RAIL is trying to tempt some of the UK's largest retailers into taking shop space within station premises.

A number of store operators are said by British Rail to be interested in the possibilities of siting U.S.-style convenience stores at stations.

A spokesman for British Rail's property board said a publicity campaign that had just been launched aimed at expanding the range of retail ventures at railway stations.

"We think station retailing should not just be about catering and newspaper kiosks," he said.

More than 300m passengers pass through British Rail stations every year. British Rail believes that such people, and those who live close to the stations, add up to a substantial market for retailers.

Rents from station retailers in 1983 totalled some £2m. British Rail hopes to at least double that amount in the next few years.

U.S. expects more British visitors

BY ARTHUR SANDLES

THE U.S. is expecting more British visitors this year than last in spite of the soaring dollar and the waning pound.

American tourism officials are looking to the UK, West Germany and France as elements of a minor revival in the number of foreign visitors to the U.S. Last year, as the dollar strengthened, the number of overseas tourists dipped by 4 per cent to 20.8m. Now the prediction is a return to 1983 levels at 21.7m. Britain should account for about 1m of those.

U.S. optimism comes with the

production of a Gallup survey in the UK, West Germany and France showing that the U.S. is still the country that heads the list of destinations that residents of those countries most want to visit.

At a transatlantic satellite press conference yesterday, U.S. officials, headed by Mrs Donna Tuttle, Under-Secretary of Commerce for travel and tourism, spoke to journalists in London, Frankfurt and Paris, outlining the findings.

The survey shows that exchange rates are a serious barrier for U.S.

tourism. They were mentioned as a problem by 62 per cent of the British respondents, 58 per cent of the Germans and 36 per cent of the French.

Of the places visitors most wanted to visit, the British put the Grand Canyon first, most Germans wanted to visit Hawaii, while the French favoured California.

There was a remarkable coincidence of expected spending rates on a U.S. holiday. The Germans said a 26-day stay would cost about \$1,694, the British \$1,690 for 22 days and the French \$1,442 for 27 days.

Electricity Supply Commission

94% Guaranteed Sinking Fund Debentures Due 1989
NOTICE IS HEREBY GIVEN, pursuant to the Fiscal Agency Agreement dated as of March 1, 1974 under which the above described Bonds were issued, that Citibank N.A., as Fiscal Agent, has selected for redemption on March 1, 1985 \$1,500,000 principal amount of said Bonds at the redemption price of 100% of the principal amount thereof, together with accrued interest to March 1, 1985. The serial numbers of the Bonds selected for redemption are as follows:

0	541	2554	1131	2015	4574	7301	8495	9240	11017	11592	12065	12408	13187	13771	14284
18	1028	2571	4138	5241	6490	7413	8006	9274	11021	11597	12067	12570	13202	13770	14304
20	1043	2590	4154	5267	6516	7439	8032	9300	11047	11623	12093	12596	13228	13796	14328
22	1058	2609	4178	5290	6539	7462	8055	9323	11070	11646	12116	12619	13251	13819	14352
24	1073	2628	4201	5313	6562	7485	8078	9346	11093	11669	12139	12642	13274	13842	14376
26	1088	2647	4224	5336	6585	7508	8101	9369	11116	11692	12162	12665	13297	13865	14400
28	1103	2666	4247	5359	6608	7531	8124	9392	11139	11715	12185	12688	13320	13888	14424
30	1118	2685	4270	5382	6631	7554	8147	9415	11162	11738	12208	12711	13401	13911	14448
32	1133	2704	4293	5405	6654	7577	8170	9438	11185	11761	12231	12734	13424	13934	14471
34	1148	2723	4316	5428	6677	7600	8193	9461	11208	11784	12254	12757	13447	13957	14495
36	1163	2742	4339	5451	6700	7623	8216	9484	11231	11807	12277	12780	13470	13980	14518
38	1178	2761	4362	5474	6723	7646	8239	9507	11254	11830	12300	12803	13493	14003	14542
40	1193	2780	4385	5497	6746	7669	8262	9530	11277	11853	12323	12826	13516	14026	14565
42	1208	2800	4408	5520	6769	7692	8285	9553	11300	11876	12346	12849	13539	14049	14589
44	1223	2819	4431	5543	6792	7715	8308	9576	11323	11899	12369	12872	13562	14072	14612
46	1238	2838	4454	5566	6815	7738	8331	9599	11346	11922	12392	12895	13585	14095	14636
48	1253	2857	4477	5589	6838	7761	8354	9622	11369	11945	12415	12918	13608	14118	14659
50	1268	2876	4500	5612	6861	7784	8377	9645	11392	11968	12438	12941	13631	14141	14683
52	1283	2895	4523	5635	6884	7807	8400	9668	11415	11991	12461	12964	13654	14164	14706
54	1298	2914	4546	5658	6907	7830	8423	9691	11438	12014	12484	12987	13677	14187	14730
56	1313	2933	4569	5681	6930	7853	8446	9714	11461	12037	12507	13010	13699	14210	14753
58	1328	2952	4592	5704	6953	7876	8469	9737	11484	12060	12530	13033	13722	14233	14777
60	1343	2971	4615	5727	6976	7899	8492	9760	11507	12083	12553	13056	13745	14256	14800
62	1358	2990	4638	5750	6999	7922	8515	9783	11530	12106	12576	13079	13768	14279	14824
64	1373	3009	4661	5773	7022	7945	8538	9806	11553	12129	12599	13102	13791	14302	14847
66	1388	3028	4684	5796	7045	7968	8561	9829	11576	12152	12622	13125	13814	14325	14871
68	1403	3047	4707	5819	7068	7991	8584	9852	11599	12175	12645	13148	13837	14348	14894
70	1418	3066	4730	5842	7091	8014	8607	9875	11622	12198	12668	13171	13860	14371	14918
72	1433	3085	4753	5865	7114	8037	8630	9898	11645	12221	12691	13194	13883	14394	14941
74	1448	3104	4776	5888	7137	8060	8653	9921	11668	12244	12714	13217	13906	14417	14965
76	1463	3123	4799	5911	7160	8083	8676	9944	11691	12267	12737	13240	13929	14440	14988
78	1478	3142	4822	5934	7183	8106	8699	9967	11714	12290	12760	13263	13952	14463	15012
80	1493	3161	4845	5957	7206	8129	8722	9990	11737	12313	12783	13286	13975	14486	15035
82	1508	3180	4868	5980	7229	8152	8745	10013	11760	12336	12806	13309	14000	14509	15059
84	1523	3199	4891	6003	7252	8175	8768	10036	11783	12359	12829	13332	14023	14532	15082
86	1538	3218	4914	6026	7275	8198	8791	10059	11806	12382	12852	13355	14046	14555	15106
88	1553	3237	4937	6049	7298	8221	8814	10082	11829	12405	12875	13378	14069	14578	15129
90	1568	3256	4960	6072	7321	8244	8837	10105	11852	12428	12898	13401	14092	14601	15153
92	1583	3275	4983	6095	7344	8267	8860	10128	11875	12451	12921	13424	14115	14624	15176
94	1598	3294	5006	6118	7367	8290	8883	10151	11898	12474	12944	13447	14138	14647	15200
96	1613	3313	5029	6141	7390	8313	8906	10174	11921	12497	12967	13470	14161	14670	15223
98	1628	3332	5052	6164	7413	8336	8929	10197	11944	12520	12990	13493	14184	14693	15247
100	1643	3351	5075	6187	7436	8359	8952	10220	11967	12543	13013	13516	14207	14716	15270
102	1658	3370	5098	6210	7459	8382	8975	10243	11990	12566	13036	13539	14230	14739	15294
104	1673	3389	5121	6233	7482	8405	8998	10266	12013	12589	13059	13562	14253	14762	15317
106	1688	3408	5144	6256	7505	8428	9021	10289	12036	12612	13082	13585	14276	14785	15341
108	1703	3427	5167	6279	7528	8449	9044	10312	12059	12635	13105	13608	14299	14808	15364
110	1718	3446	5190	6302	7551	8469	9067	10335	12082	12658	13128	13631	14322	14831	15388
112	1733	3465	5213	6325	7574	8492	9090	10358	12105	12681	13151	13654	14345	14854	15411
114	1748	3484	5236	6348	7597	8515	9113	10381	12128	12704	13174	13677	14368	14877	15435
116	1763	3503	5259	6371	7620	8538	9136	10404	12151	12727	13197	13700	14391	14900	15458
118	1778	3522	5282	6394	7643	8561	9159	10427	12174	12750	13220	13723	14414	14923	15482
120	1793	3541	5305	6417	7666	8584	9182	10450	12197	12773	13243	13746	14437	14946	15505
122	1808	3560	5328	6440	7689	8607	9205	10473	12220	12796	13266	13769	14460	14969	15529
124	1823	3579	5351	6463	7712	8630	9228	10496	12243	12819	13289	13792	14483	14992	15552
126	1838	3598	5374	6486	7735	8653	9251	10519	12266	12842	13312	13815	14506	15015	15576
128	1853	3617	5397	6509	7758	8676	9274	10542	12289	12865	13335	13838	14529	15038	15600
130	1868	3636	5420	6532	7781	8699	9297	10565	12312	12888	13358	13861	14552	15061	15623
132	1883	3655	5443	6555	7804	8722	9320	10588	12335	12911	13381	13884	14575	15084	15647
134	1898	3674	5466	6578	7827	8745	9343	10611	12358	12934	13404	13907	14598	15107	15670
136	1913	3693	5489	6601	7850	8768	9366	10634	12381	12957	13427	13930	14621	15130	15694
138	1928	3712	5512	6624	7873	8791	9389	10657	12404	12980	13450	13953	14644	15153	15717
140	1943	3731	5535	6647	7896	8814	9412	10680	12427	13003	13473	13976	14667	15176	15741
142	1958	3750	5558	6670	7919	8837	9435	10703	12450	13026	13496	14000	14690	15199	15764
144	1973	3769	5581	6693	7942	8860	9458	10726	12473	13049	13519	14023	14713	15222	15788
146	1988	3788	5604	6716	7965	8883	9481	10749	12496	13072	13542	14046	14736	15245	15811
148	2003	3807	5627	6739	7988	8906	9504	10772	12519	13095	13565	14069	14759	15268	15835
150	2018	3826	5650	6762	8011	8929	9527	10795	12542	13118	13588	14092	14782	15291	15858
152	2033	3845	5673	6785	8034	8952	9550	10818	12565	13141	13611	14115	14805	15314	15882
154	2048	3864	5696	6808	8057	8975	9573	10841	12588	13164	13634	14138	14828	15337	15905
156	2063	3883	5719	6831	8080	8998	9596	10864	12611	13187	13657	14161	14851	15360	15929
158	2078	3902	5742	6854	8103	9021	9619	10887	12634	13210	13680	14184	14874	15383	15952
160	2093	3921	5765	6877	8126	9044	9642	10910	12657	13233	13703	14207	14897	15406	15976
162	2108	3940	5788	6900	8149	9067	9665	10933	12680	13256	13726	14230	14920	15429	16000
164	2123	3959	5811	6923	8172	9090	9688	10956	12703	13279	13749	14253	14943	15452	16023
166	2138	3978	5834	6946	8195	9113	9711	10979	12726	13302	13772	14276	14966	15475	16047
168	2153	3997	5857	6969	8218	9136	9734	11002	12749	13325	13795	14299	14989	15498	16070
170	2168	4016	5880	6992	8241	9159	9757	11025	12772	13348	13818	14322	15012	15521	16094
172	2183	4035	5903	7015	8264	9182	9780	11048	12795	13371	13841	14345	15035	15544	16117
174	2198	4054	5926	7038	8287	9205	9803	11071	12818	13394	13864	14368	15058	15567	16141
176	2213	4073	5949	7061	8310	92									

UK NEWS

The State of Maryland, U.S.A., would like to put a little temptation in the way of British business.

The carrot is the universal symbol of incentives.

In Maryland we offer business people the biggest incentive of all — a commitment to help protect your profits — the lifeblood of your company.

So if you're thinking of establishing distribution, office, assembly or production facilities in America, Maryland is the place to begin.

It's situated about half way down the right hand side of the USA, on the doorstep of Washington D.C., and roughly equidistant from Boston, Chicago and Atlanta. In Baltimore, we boast the second busiest container port on the eastern seaboard, and we have three duty free Foreign Trade Zones.

There are also three major airports in the region so you can fly non-stop to London.

Maryland is a fine place to live.

The state has the highest ownership of sailing boats per capita in the entire USA!

Which is probably why we also have the highest concentration of engineers, scientists and skilled technicians of any region in the country and perhaps the world.

But, most important, Maryland is unashamedly "pro-business."

We want to attract new enterprises, new industries, new initiatives.

Every Marylander will welcome you. And you'll not be the first to try it; nearly 200 European companies have already come for the carrot... and stayed on to profit!

For more information about how to set up business in our state, contact the State's Office in Brussels. Telephone: 010/32.2/539.03.00 or telex 64317 mareur b.

Or simply fill in the coupon, attach it to your company letterhead, and send it to the address shown.

THE STATE OF MARYLAND

State of Maryland Dpt I, rue Defacqz, 78, Box 6, B-1050 Brussels, Belgium.

Name _____

Title _____

Company _____

Address _____

Tel. _____ Telex _____

Maryland, USA. The Pro-Business State.

ANALYSTS ASSESS OUTLOOK FOR STERLING

Interest rates 'unlikely to drop back below 12%'

BY MAX WILKINSON, ECONOMICS CORRESPONDENT

UK INTEREST rates are unlikely to fall back below 12 per cent for some time, according to most analysts in the City of London.

After the rise of banks' base lending rates to 14 per cent last Monday, the City has been anxiously trying to assess the stability of sterling and the new mood of the authorities.

Yesterday, the broker James Capel said in its latest UK Economic Assessment: "The change of stance of the authorities apparently opens the way to even higher rates (of interest) if sterling comes under further substantial pressure."

Capel says the state of the City's confidence in the fundamentals of domestic policy "is likely to permit only a gradual reduction in interest rates."

"Evidence of monetary growth returning within its target range and public expenditure (and the Public Sector Borrowing Requirement) well under control will be necessary to re-establish confidence."

"This is perfectly feasible, but it will not happen overnight. This points to the average level of interest rates remaining high in the first half of the year, despite a reduction from current 'crisis' levels."

Mr Stephen Lewis, monetary analyst for the broker Phillips and Drew, said: "The markets are accommodating themselves to the new thinking, which is that base lending rates are not likely to come down substantially for some time."

The broker Laurie Milbank says in its Economic Review that the most worrying aspect of the recent weakness of sterling is that the outlook for inflation is beginning to deteriorate, while there is still no genuine sign of a downturn in unemployment.

The broker adds that if the Chancellor of the Exchequer succumbs to political pressure to make extravagant tax cuts in his budget, the UK economy would be in danger of drifting towards Reaganomics.

It adds that even if the influence of oil prices were removed from the UK monetary scene, any improvement in UK gilt-edged (government) stock prices must stem from domestic factors, since US interest rates are likely to move upwards again towards the second quarter of the year.

Messel and Co says in its weekly Economic Monitor that the Chancellor must go for a fairly tight bud-

get. It adds: "The loss of financial confidence has been one reason for the emergence of very high real interest rates."

"In this sort of environment, any government running a budget deficit is likely to end up in a debtor's nightmare where interest on past debts grows explosively and overwhelms attempts to control other items of public expenditure."

Messel adds that deterioration of financial confidence has raised expectations about future inflation as well as real interest rates. It believes the inflation rate should touch 6 per cent at some time in the summer.

Rowe and Pitman in its Economic Review says that today's money supply figures will be crucial for the markets' perception of what the monetary stance actually was during last month's sterling crisis. That is because previous figures had been distorted by the effect of the flotation of British Telecom.

Mr Ian Harwood, the broker's economic analyst, said that the authorities would be anxious to maximise gilt-edged sales in the present banking month (ending February 20), to make sure the next money supply figures are good.

Whitehall plans help for small businesses

By Ian Hamilton, Fizzy and William Dawkins

THE GOVERNMENT will shortly receive proposals for cutting some of the bureaucracy that Whitehall believes is seriously hampering the emergence of new businesses.

The report, drawn up by a committee that includes members of seven government departments, is expected to be finished by the end of next week.

Recommendations will be submitted to Mrs Margaret Thatcher, the Prime Minister — who has declared a special interest in their implementation — and to Mr David Trippier, the minister for small businesses.

The most controversial feature of the report is that it is unlikely to make any suggestions for alleviating the burden of value-added tax (VAT), which a number of surveys has shown to be the biggest obstacle for small businesses.

Many ministers, including Mr Trippier, would like to see the VAT threshold raised from £18,700 turnover a year to £50,000 or even £100,000. But the Treasury insists that VAT is a matter for the budget and not for deregulation reforms. The Government's present policy is to raise the VAT limit according to inflation at each annual budget.

The European Commission, meanwhile, is putting pressure on Whitehall to reduce the VAT limit. It points out that the UK is out of step with the rest of Europe and that its VAT threshold is the second lowest in the Community after Ireland.

The scrutiny committee's report is likely to concentrate on cutting other kinds of bureaucracy. It is expected to suggest ways in which planning permission could be easier for small businesses to obtain. Less onerous requirements for company registration are also believed to be among the proposals.

The committee is also likely to suggest that the Government's enterprise allowance scheme should be extended. The basic requirements are that self-employed applicants who have £1,000 to put into their ventures can qualify for a £40-a-week subsidy.

The committee is understood to wish to retain those rules, but to make more money available so that the existing backlog of applications can be cleared quickly.

Sales of diesel cars nearly double in year

By John Griffiths

DIESEL CAR sales in the UK almost doubled last year to 45,388 compared with 24,802 a year earlier.

Their share of the total new car market, at 2.5 per cent, remained small compared with most continental European countries, where, according to Ford, more than 20 per cent of cars sold in Italy, Spain and Belgium are diesels and more than 10 per cent in West Germany, France and Ireland.

The introduction by Ford and Vauxhall of diesel-engined versions of their volume cars has given a sharp impetus to UK sales.

● The UK retail motorcycle trade is moving back towards profitability despite a continuing low level of sales, according to a survey of 400 dealers undertaken by the Motor Agents' Association.

Short wins Chinese order for eight aircraft

BY OUR BELFAST CORRESPONDENT

SHORT BROTHERS, the state-owned Belfast aircraft maker, has received an order from China for eight aircraft.

The Civil Aviation Administration of China (CAAC) is to buy the 36-seat 380 regional airliner as part of its programme to expand and update the fleet of civil aircraft.

It is Short's first order from Peking and the first sale of an all-British aircraft to China since orders for Tridents were placed in the early 1970s. Orders and options for the 380, which was launched in 1981, now exceed 100.

Short said there was a possibility of further orders from CAAC. It put no value on the sale, but it is understood to be worth more than £30m, and will help to secure the jobs of many of Short's 6,500 workers after

a year in which sales of the 380 were lower than expected.

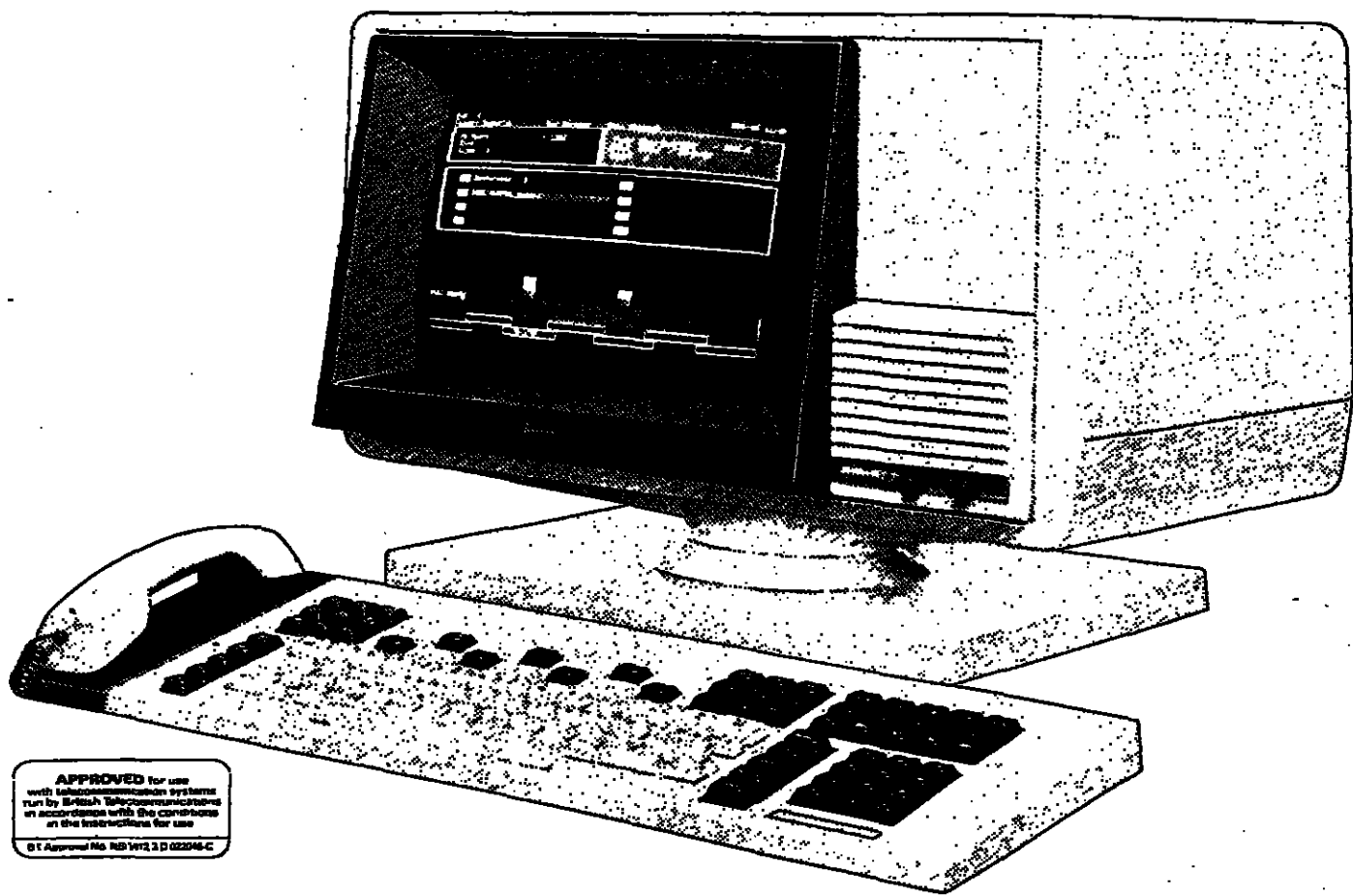
Sir Philip Foreman, Short's chairman and managing director, said the CAAC was updating its fleet and extending its routes. Short had the right aircraft at the right time and he hoped the sale would be the start of a long relationship.

The aircraft will all be delivered this year to join fleets of recently acquired Boeing 737s and McDonnell Douglas MD-80s. The Short aircraft will provide feeder services to main airports.

Short has already penetrated the Far East with sales of 380s to Malaysia and the smaller 330 to Thailand. It believes the Chinese order will give it a solid foothold in a market hotly contested by rival manufacturers from Canada, Sweden, Brazil and Spain.

Where's the next frontier for your business?

The Mitel SX-2000 Superswitch.
The world's most advanced telephone system for companies needing 300-3,000 extensions.



The efficiency of any business depends on many factors. But there's one asset no efficient business can be without: a really effective communications system. A system that will give you a real communications breakthrough. A system to take you across the next frontier. And that's precisely what the new Mitel SX-2000 Integrated Communications System can do.

Transform your business

The SX-2000 caters for 300-3,000 extensions. It's a powerful business system. It can transform the way your staff work — and, therefore, how your whole business operates. It's smaller. It takes less power. In short, it can save you time, space, energy — and money.

It operates typically through advanced, multi-purpose desktop terminals, such as the Superset 7 — which can be used as an operator or maintenance console, or the Superset 4 — an integrated feature phone.

Invest in the future

With the SX-2000, you can be sure your investment is secure. It's designed not just to meet your requirements today, but to

take your company into the automated future. So you can introduce it as an economical, flexible telephone system today, then use it to integrate the switching of voice, data, text and image — and provide links for local area networks. After that, it can offer any number of new facilities, such as videodata, electronic mail and voice messaging... and some you haven't even dreamt of.

Tried. Tested. Proven

But the SX-2000 is no dream. It's a reality — tried, tested, proven. Already, over 50 major UK installations are realizing its benefits. Installations in a wide variety of businesses and organizations — from central and local government to oil companies, from stockbrokers to public utilities, from manufacturers to distributors.

You could benefit, too. Find out how the SX-2000 could take your business across the next frontier. Return the coupon to us today.

Mitel Telecom Limited,
SX-2000 Sales Department,
Severnbridge Estate, Portskewett,
Gwent NP6 4YR. Tel: (0291) 423355.



Building Better Communications Worldwide

To: Mitel Telecom Ltd, SX-2000 Sales Department,
Severnbridge Estate, Portskewett, Gwent NP6 4YR. FT 5/2

Please send me further information on the Mitel SX-2000.

Name _____ Address _____

Position _____

Company _____ Tel. _____

Number of telephone extensions currently used by organization _____



2 GOVERNMENT will give proposals for cutting the bureaucracy that it believes is seriously hampering the growth of new businesses in its first major report, drawn up by a committee of senior government ministers, expected to be finished this next week.

Recommendations will be sent to Mrs Margaret Thatcher by Prime Minister's secretary Lord Fraser, secretary of a special inter-departmental committee on government - and will be presented to the minister by his advisers.

A most controversial part of the report is that it is to encourage a change in the way the burden of taxation is shared, with a number of businesses, which are thought to be the largest, to be charged a small business rate.

Any minister introducing the proposals will have to defend his order, would not be allowed to raise from £100,000 to £200,000 a year to £250,000. But the Treasury VAT is a matter for parliament, not for government ministers. Government's present use of the VAT will be subject to a new consultation at each annual rate of a European Commission.

While, in putting pressure on the rate to reduce the VATs out that the UK is with the rest of Europe, VAT is threatened in the Community.



formatted
 is an
 system: a
 finding of
 his books
 it can be
 with an
 and
 for a given

ma. It's a ready-made solution to a variety of formal and informal disputes that can't be solved through direct

353.

- de
- PTSD

3, Charlotte Square, Edinburgh EH2 4DS
Telephone (031) 225 4571 and ask for John Wood

THE ARTS

Japanese art/William Packer

Potent and magical symbolism

I write this piece in Tokyo towards the end of a study tour of Japan that already has lasted more than two weeks without a pause, most of it on the road. Eight of us from the British art world, the rest directors or curators, are here as guests of the Japan Foundation to see as much as possible of the art of Japan, old and new, and the museums and institutions which support and celebrate it—and to see it all against the broader culture from which it springs.

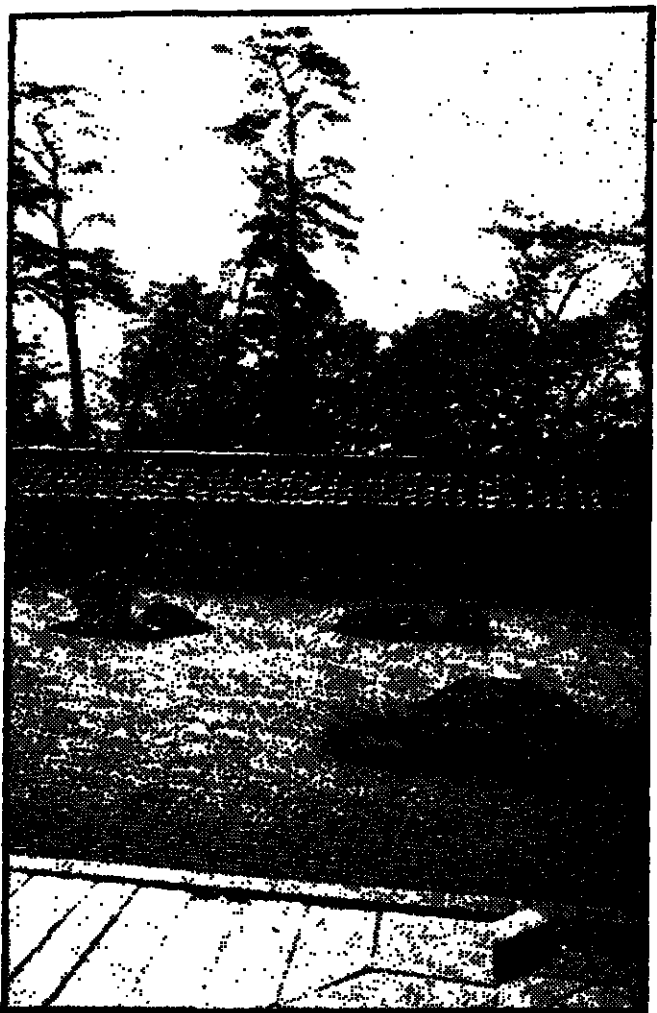
Coming to it all not entirely unprepared, nor unprejudiced exactly, but certainly with fresh eyes, our views may not fall quite into focus with those of our hosts—some of what we have seen surprises and excites us, some of it worries us—but that is all in the spirit of the exercise.

But no visitor worthy of Japan can come here and not be drawn to a recent charged by its cultural inheritance, by the power and beauty of its art and architecture, and the vitality and inventiveness of its creative tradition.

So strong is it indeed, that many Japanese artists today take it more as an inhibitor and constraint than a natural support, which is understandable enough, but a dangerous alienation if unresolved; for no artist can work in a vacuum, cut off from formative and instinctive experience, least of all in conformity to generalised and rootless international stimulus. An artist can only work truly from what he knows.

The odd thing is that so much of the old art of Japan strikes us as a recent charge upon the modern sensibility, or so it does to one formed outside Japan.

We have been these past few days in Kyoto, with an excursion yesterday to Nara. We were taken to the Katsura Imperial Villa, a pleasure pavilion of the early 17th century with its succession of seasonal tea houses set in an exquisite garden, the temple of Myōshin-ji, with Ryū, its mythical dragon painted on the ceiling of the lecture hall, changing his mood as one moves round the huge room, to Ryoan-ji, with its Zen garden of raked sand and isolated



Ryoan-ji rock garden, Kyoto

stones: to the Ginkaku-ji, the most perfect pavilion beside the water, and its white sand garden; to the Kozan-ji high in the mountains beyond the city, old, tiny and exquisite; the carving of Miroku-Bosatsu, of the 7th century, at the Koryū-ji—

—and so on.

It would be all too easy to condescend too much, and bring to bear on these ravishing things only a detached and superior western aestheticism, but even so these are potent

and magical things. Why does a topped cone of silver sand, some five feet high, affect us so, an image devised centuries ago, and remade afresh every day? A minimalist critique might allow the simple disposition of form in space, and ideas of displacement and relation, but to the guide it is plain enough: the pile of sand the mountain, and the furrows of the raked sand beside it the waves of the Western Sea.

At Ryoan-ji, the sand garden is simpler still, for it is not set into the landscape but contained by the temple verandah on one side, and by long low walls, some eight or nine feet high, on the others. Into this long rectangle are set some five or six low rocks, as they might be islands in a sea of sand, neither central nor dominant, but discreetly placed here and there, and more towards the sides than not. Again, the sand is raked afresh every day. We see it from one side only, and sitting on the low platform, as the simplicity of the work and it is an authentic work of art — insinuates itself into the mind, so the imagination is freed, and for all the crowd shuffling about something of the Zen tranquility imposes itself.

To the Japanese, the water — which is here the sand — is the blood, the rock the bone, the earth the flesh, all in suggestion and symbol for the mind to play with.

At Katsura, the great pavilion, with its platform to view the moon, has extensions stepping away in echeleon to one side. The architectural historian may speak of the abstract organisation of space, but this is another world, and this disarmingly no more than image and reflection of the wild geese in flight. It is this trick of evocation and suggestion that lies at the heart of Japanese practice, even in the most modern work: a quality we have perhaps dismissed too much in our own work in the west. In the name of a dubious modernist purism and distrust of external reference, in Japan the old raku tea bowl is given its own particular name and the most abstract and elusive of images and blobs on an ancient scroll conjure up a most wonderful image of cherry blossom. The wooden sculpture of Miroku-Bosatsu in Kyoto is a splendidly clever piece of design and form, and more than that — a leg balanced delicately upon knee, fingers lightly brushing the cheek, head and eyes just cast down, and altogether deep and lost in thought. It is a profound and very beautiful human image.

Italian opera/Bologna and Milan

William Weaver

For several years — until last spring — the historic Teatro Comunale in Bologna was dark. Or rather, it was closed to the public, while inside, teams of workmen were busy restoring the lovely Bibiena hall. Now, with restoration almost complete, the Comunale has launched its new season and the house is in normal working order. First of all, it is a relief to be able to say that the restoration has been carried out with great tact. When one thinks of what has been done to some Italian theatres (the lovely old Teatro Argentina in Rome is a particularly dire example), the simple elegance of the refurbished foyers and the faithful work in the hall itself seem almost miraculous.

And after several disappointments in more glittering galle openings this season, it was a pleasure to attend the Comunale's initial production: a staging of Gluck's rarely-done *Armide*. For the occasion, the theatre did not summon international superstars, but called instead on a scholar-musician, Alan Curtis, who prepared the edition and conducted it.

The word "scholarship" makes some opera-lovers reach for their revolvers (or for their pen-pills), but there was nothing dry or lifeless about

Curtis's performance. This is not to say it was flawless: in the title role Raina Kabaivanska looked lovely and moved with noble yet seductive grace; but the voice was the opposite of seductive: hard, at times shrill. Her confidantes, Gloria Banditelli and Daniela Mazzucato, on the other hand, were pert and charming, vocally at ease. As Renaud (or Rinaldo, as he is more often called), Jeffrey Thomas was musical and stylish, though his voice was light, colourless. The smaller roles were well-cast.

The choreography did little to enhance Gluck's splendid ballet music, and Filippo Sanjust's sets and costumes, handsome in themselves, sometimes erred on the side of coldness (in the magic pastoral of Act 2, a bit of greenery would have helped). But, by and large, the production moved well — Sanjust was also the producer — and was never flashy or vulgar.

In *Armide* — the opera that opened the season at La Scala — a bit of vulgarity is all right. But Piero Faggoni — responsible for staging, sets, lights, and (with Maurizio Millettini) costumes — is a producer with big ideas. As he announced in various interviews, he felt that the part of Don José is usually neglected and the tenor should be restored to centre-stage. As

justification, Faggoni cited the original Mérimée story.

Thus La Scala's *Armide* is "seen" as a series of flash-backs from José's prison cell. The flashback idea (also used by Zeffirelli in his recent *Traviata* and by Ponnelle and others elsewhere) is getting very tired; and in Faggoni's case is served only to keep the stage dark a lot of the time and to compress most of the action among three walls. This was vulgar, but the wrong kind.

In the title role, Shirley Verrett was sadly miscast. Visually, she was a sedate, matronly type, and vocally she was all over the place. For admirers who know what can be, this was a painful occasion. And her difficulties seemed to affect the rest of the performance. Claudio Abbado conducted an uninspired orchestra, which was not always together with the chorus. Even Domingo — the best of the principals — sang as if he had just stepped off a plane (he missed nearly all the rehearsals in fact); and Ruggero Raimondi belted out the Toreador Song as if he were participating in a hog-calling contest. The *Micela*, Alida Ferrarini, won a huge ovation, and deservedly. The voice is not really exceptional, but it is sweet and true and she uses

it tastefully. And, in this *Armide*, there was enough to make her a heroine.

The second week of La Scala's season featured the first performance of the theatre's ballet in a revival of Prokofiev's *Romeo and Juliet*. The Cranko choreography, restaged by George Tsalkiadakis, has lost much of its snap; and there was a perfunctory quality about the performance. Again, the orchestra — under Michel Sannon — did not play at its best. Anna Razzi was a mature Juliet, and Marco Pierin a callow Romeo. The Mercutio of Bruno Vescevo was the one vital contribution to a dispirited evening.

The Scala season is not off to a good start; and the rest of the calendar, consisting largely of revivals, does not hold much promise of excitement.

Covent Garden seat prices increased

Royal Opera House seat prices will be raised from the start of the April/May booking period. The average increases will be 8 per cent for opera (giving a price range of £2 to £37) and 6 per cent on ballet (£1 to £21).



RSC tries a self-help policy

Antony Thornecroft

After years in which the Royal Shakespeare Company complained of the inadequacy of its public subsidy it is now propagating the philosophy of self-help. Rightly predicting that it could expect only a small increase in Arts Council grant in 1985-86 — it should hear this week of a 2 per cent rise — the company is concentrating on the marketing of its theatrical successes of recent seasons.

In a bid to boost income the RSC is reviving *Nicholas Nickleby* for a Christmas season in Stratford and then taking it on a nine-month U.S. tour; transferring to the West End three recent critical successes, *Julius Caesar*, *The Merchant of Venice*, and *As You Like It*; and Pam Gem's *Comedies*, launching a major musical as a replacement for *Peter Pan* — *Les Miserables*, opening at the Barbican before a West End move; and screening on TV three past productions.

To counter arguments that it is selling out, the RSC is mounting a series of new works — three plays by Edward Bond on nuclear war, which will be presented at the Pit, in the Barbican, from the end of May, and three by Howard Barker at the Barbican will be Red Nose, by Peter Barnes, with Antony Sher.

The Shakespearean element in the RSC's repertoire looks diluted this season. There are only four new productions at Stratford. *The Merry Wives of Windsor*, *As You Like It*, *Troilus and Cressida*, and *Othello*, with Ben Kingsley in the title role. The Barbican reason will basically consist of eight transfers from Stratford, opening in mid-April with the *Hamlet* of Roger Rees.

The most interesting work this year in Stratford will be at the Other Place: an adaptation by Dusty Hughes of Gorky's comedy *Philistines*; Christopher Hampton's adaptation of *Les liaisons dangereuses*; and *Mari*, about the Queen, a walk about production which will move around the town.

Trevor Nunn, the director of the RSC, will be involved with two productions, the revival of *Nicholas Nickleby* and *Les Miserables*, both with John Caird. Terry Hands, his deputy, will be responsible for *Othello* and *Red Nose*. Leading the transfers are *Nicholas Nickleby*, *As You Like It*, *Henry VIII*, *Henry IV*, *Henry V*, *Henry VI*, *Henry VIII*, *Henry VI*, *Henry V*, *Henry IV*, *Henry III*, *Henry II*, *Henry I*, *Richard I*, *Richard II*, *Richard III*, *Richard IV*, *Richard V*, *Richard VI*, *Richard VII*, *Richard VIII*, *Richard IX*, *Richard X*, *Richard XI*, *Richard XII*, *Richard XIII*, *Richard XIV*, *Richard XV*, *Richard XVI*, *Richard XVII*, *Richard XVIII*, *Richard XIX*, *Richard XX*, *Richard XXI*, *Richard XXII*, *Richard XXIII*, *Richard XXIV*, *Richard XXV*, *Richard XXVI*, *Richard XXVII*, *Richard XXVIII*, *Richard XXIX*, *Richard XXX*, *Richard XXXI*, *Richard XXXII*, *Richard XXXIII*, *Richard XXXIV*, *Richard XXXV*, *Richard XXXVI*, *Richard XXXVII*, *Richard XXXVIII*, *Richard XXXIX*, *Richard XL*, *Richard XLI*, *Richard XLII*, *Richard XLIII*, *Richard XLIV*, *Richard XLV*, *Richard XLVI*, *Richard XLVII*, *Richard XLVIII*, *Richard XLIX*, *Richard L*, *Richard LI*, *Richard LII*, *Richard LIII*, *Richard LIV*, *Richard LV*, *Richard LVI*, *Richard LVII*, *Richard LVIII*, *Richard LIX*, *Richard LX*, *Richard LXI*, *Richard LXII*, *Richard LXIII*, *Richard LXIV*, *Richard LXV*, *Richard LXVI*, *Richard LXVII*, *Richard LXVIII*, *Richard LXIX*, *Richard LXX*, *Richard LXXI*, *Richard LXXII*, *Richard LXXIII*, *Richard LXXIV*, *Richard LXXV*, *Richard LXXVI*, *Richard LXXVII*, *Richard LXXVIII*, *Richard LXXIX*, *Richard LXXX*, *Richard LXXXI*, *Richard LXXXII*, *Richard LXXXIII*, *Richard LXXXIV*, *Richard LXXXV*, *Richard LXXXVI*, *Richard LXXXVII*, *Richard LXXXVIII*, *Richard LXXXIX*, *Richard LXXXX*, *Richard LXXXXI*, *Richard LXXXXII*, *Richard LXXXXIII*, *Richard LXXXXIV*, *Richard LXXXXV*, *Richard LXXXXVI*, *Richard LXXXXVII*, *Richard LXXXXVIII*, *Richard LXXXXIX*, *Richard LXXXXX*, *Richard LXXXXXI*, *Richard LXXXXXII*, *Richard LXXXXXIII*, *Richard LXXXXXIV*, *Richard LXXXXXV*, *Richard LXXXXXVI*, *Richard LXXXXXVII*, *Richard LXXXXXVIII*, *Richard LXXXXXIX*, *Richard LXXXXXX*, *Richard LXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*, *Richard LXXXXXXVI*, *Richard LXXXXXXVII*, *Richard LXXXXXXVIII*, *Richard LXXXXXXIX*, *Richard LXXXXXXX*, *Richard LXXXXXXXI*, *Richard LXXXXXXII*, *Richard LXXXXXXIII*, *Richard LXXXXXXIV*, *Richard LXXXXXXV*,

With a saving of just £1,000, this exporter went out of business.

When faced with the choice of whether to take out export credit insurance or not, our friend decided to pocket the cost of a policy and run the risk.

True, he saved £1,000.

Unfortunately his buyer went bankrupt, turning that little saving into a big mistake.

As export credit insurers we can't guarantee that things won't go wrong.

But we can guarantee up to 90 or 95% of an exporter's money if an overseas customer or country fails to meet its obligation to pay.

If you're in the export business, then you know about the risks.

If you're not insured against non-payment, then maybe that's a risk we can remove.

We know at least one man who'd agree with us, but he's not in business any more.



Export with confidence.

£1,000 represents a typical premium for comprehensive short term credit insurance for new policy-holders with an export turnover of £100,000 p.a.

EXPORT CREDITS GUARANTEE DEPARTMENT HEAD OFFICE: LONDON EC2 01-382 7777. REGIONAL OFFICES: BELFAST 0232-231743, BIRMINGHAM 021-233 1771, BRISTOL 0272-299971, CAMBRIDGE 0223-68801, CITY OF LONDON 01-726 4050, CROYDON 01-680 5030, GLASGOW 041-332 8707, LEEDS 0532-450631, MANCHESTER 061-834 8181.



FINANCIAL TIMES

BRACKEN HOUSE, CANNON STREET, LONDON EC4A 4BY
Telegrams: Finantime, London PS4. Telex: 6954871
Telephone: 01-248 8000.

Tuesday February 5 1985

An evasive U.S. Budget

IT IS EASY to see why the markets, after one look at President Reagan's Budget proposals, concluded that the deficit is here to stay and promptly marked up the dollar another notch. The President has offered some highly unpopular proposals. Nevertheless, even if they were adopted by Congress, which nobody expects, and even if the administration's optimism about U.S. growth is justified, which may well be more likely, despite the scepticism of many economists, the deficit would only be modestly reduced over the next two years. The President's claim that this would at least initiate a permanent downward trend in the deficit is also hard to swallow. The future growth of entitlement programmes, through the ageing of the population, might well start the trend upward again.

A Presidential Budget is not a cut-and-dried policy statement as a European Budget would be; it is an opening shot in a duel between the administration and the legislature which will go on throughout the spring and summer.

The taxation of pensions

AS THE Meade Committee noted in 1978, the taxation of pension funds is theoretically almost ideal. The tax-deductibility of contributions and the tax-free accumulation of investment income is balanced by the full taxation, as income, of pensions in payment. The deferment of tax until pensions are actually paid out is economically efficient: the pre-tax return on the underlying investment and the post-tax return to savers are equalised.

There is only one clear anomaly: the treatment of lump sum payments. Taxation and lump sums which have been accumulated out of tax-free contributions are no less than officially sanctioned tax shelter.

The commission should be phased out, starting on March 1, 1985, as fast as is consistent with the Chancellor's pledge of no retrospective legislation. The simplest method would be to announce in the Budget that the fraction of a lump sum which is tax free is to be progressively reduced from 150 per cent of final salary today to zero in five to 10 years' time. This would involve some rough justice — not least in the public sector, where lump sum payments have become traditional. But some price has to be paid if tax reform is to be more than an aspiration.

Lump sums aside, the taxation of pension funds is eminently logical. Unfortunately, the taxation of other savings media is not. Liability to tax cannot be deferred until the proceeds from savings are run down. Pension funds' ability to defer tax is a considerable advantage which goes a long way to explain their rapid growth and the crowding out of direct personal investment.

Dilemma

The unique treatment of pension schemes presents the Chancellor with a dilemma. Theoretically, the most attractive solution might be to follow the Meade Committee's advice and attempt to put other savings media on a comparable footing. But the abolition of tax relief for life assurance premiums last year suggests Mr Lawson has rejected this approach. If so, he has little option but to

Budget. Since not even an electoral landslide can empower the President to repeal the laws of addition, he is convicted by omission of leaving the most unpopular decisions to Congress.

Entitlements

Indeed, the President has already started to hint at the unpopular decisions he would "reluctantly" accede to, by saying that if faced with an overwhelming Congressional vote to attack social security by suspending indexation, he would have to reconsider his position. An outright proposal to increase tax rates probably would bring down a Reagan veto, but some of the less direct proposals now circulating to reduce deductions against tax liability — the most straightforward being a 10 to 20 per cent cut in total deduction entitlements — might again sneak by. It is therefore probably within the power of Congress to produce a Budget which would make a serious dent in the deficit, but it is an odd kind of dent which does not even begin to point the way. Again, market scepticism seems justified.

Proposals

In one respect, however, both the President and his Congressional critics miss a central point — indeed, the tax markets. This is that the tax simplification proposals promised for later this year could address the deficit far more effectively than any likely Budget compromise. By 1990, as the proposals show, debt service will account for the whole of the projected Federal deficit. A reform which enabled the tax shelters which enable savers to outbid most others, and force the rest — notably the U.S. Government itself — to pay record real rates would do more than anything to bring both the deficit and the dollar into the realms of sustainable economic reality.

AIRBUS INDUSTRIE, the European airliner manufacturing consortium, is flying into a bout of turbulence over its future management structure — just at the time when competition with Boeing, the world's No. 1 airliner company, is widening into a full scale battle of the skies.

A split between its French, West German and British shareholders over the organisation of the consortium has come to a head in a squabble over the choice of a new chairman to succeed France's M Bernard Lathiere, who has just stepped down after 10 years in the job.

The tussle coincides with a turning point in Airbus's 15-year-old effort to challenge Boeing's dominance built on mastery of the aircraft industry's long production schedules and no-holds-barred marketing techniques.

With its production range being significantly widened, and a former footing established in the U.S. following last autumn's ground-breaking deal with Pan American World Airways, Airbus is moving ever deeper into Boeing territory.

But, at the same time, the European governments which up to now have been the main paymasters of the Airbus development programme are becoming more restive over whether they are getting value for money.

The dispute among shareholders in the four-country consortium — which groups Aerospatiale of France, Messerschmitt Boelkow Blohm of Germany, British Aerospace and CASA of Spain — is about whether the consortium should be brought closer together.

M Roger Betteille, the general manager, who is himself shortly to retire for health reasons, is appointed on Friday night to take over on an interim basis from M Lathiere. The French candidate, M Jean Pierson of Aerospatiale, seems likely to chair the over-riding committee. But his former appointment has been delayed while the consortium decides a possible new management structure.

The need for a tighter grip is a result of the recent competition with Boeing. Airbus needs more flexibility in its relatively unwieldy production arrangements to stay in the game with the American giant.

IF YOU ask Boeing executives for the key ingredient in successful commercial aircraft sales today they give a totally unhesitating reply. Finance, they say, has dictated virtually every big order since 1982 — and they do not like this trend one bit.

"We believe that a deal should be determined by product quality and product utility, not by the finance on offer," says Mr Thomas Riedinger, director of marketing communications at Boeing.

But what we want is a product competition, not financing competition."

It is not difficult to identify the target of Boeing's dislike of the financing weapon. The European Airbus consortium ranks very high in the Seattle-based company's list of competitors, not so much because of the Airbus product — many Wall Street analysts say that Boeing is far more afraid of a resurgent McDonnell Douglas — but because it believes the European company's sales techniques are destabilising the market.

This means either that contributions should cease to be tax-deductible or that investment returns should be taxed. The first option appears to be impractical. The part of pensions in payment which reflects contributions would deserve to be taxed, but could not be easily distinguished from the accrued income. In any case, companies might shift to unfunded schemes, thus ensuring that pension costs remained a business expense. The second option, though, is no means easy. It ought to be possible to tax some measure of funds' total investment return. An inflation adjustment would be desirable because a levy on nominal gains could result in negative post-tax real returns; funds could justifiably claim that this would undermine the long-run economics of schemes.

Difficulties

The pensions industry is likely to stress the practical difficulties of taxing real returns and the likely impact on contribution rates. These problems need not be insuperable. While a modest cut in benefits or rise in contributions might be necessary if real returns were taxed, the very large surpluses of many funds suggests the adjustment might not prove too onerous.

Advantages might be well advised to co-operate with the government in a sensible tax on real returns which could contribute to fiscal neutrality in the longer term because the alternatives might be worse. The funds' big surpluses are a temptation and Mr Lawson could resort to the sort of windfall levy Sir Geoffrey Howe imposed on the clearing banks in 1981. Alternatively, the Inland Revenue might try to insist that funds which are in surplus should lower contribution rates, thus boosting corporate profits and, with luck, corporation tax receipts. Neither of these opportunistic revenue-raising measures would do anything to foster fairer taxation in the savings market or the rational provision for old age.

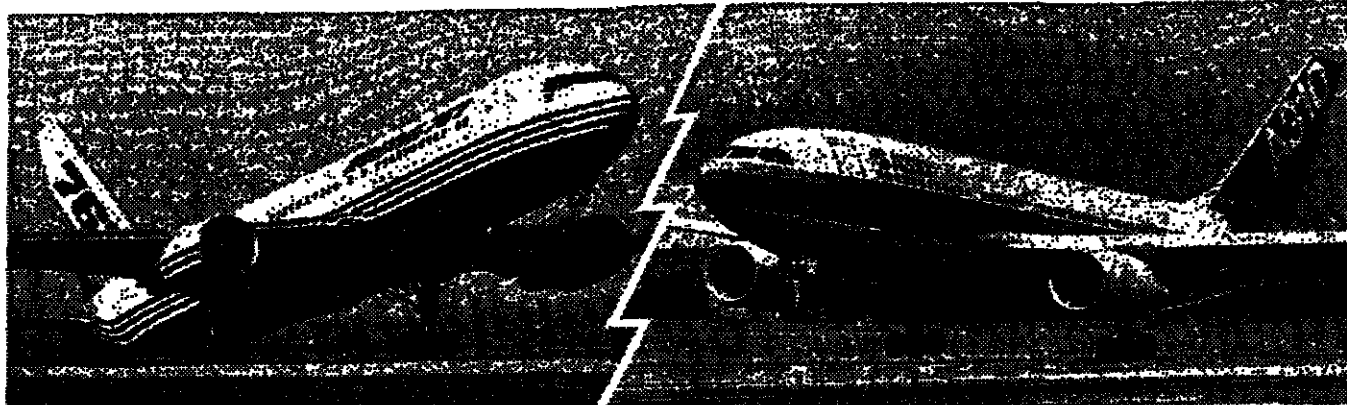
But many of the ITV barons — less than amused by Cowgill's belligerent (and expensive) swipe at the BBC just as they were negotiating their Channel 4 subscriptions — now seem

determined to keep the TYN prize from him. Word is that Brian Tesler, chairman of London Weekend Television, is much more likely to get it.

A vital link
Professor Gareth Roberts, 44, has been lured from his chair in applied physics at Durham University to be Thorn-EMI's chief scientist — for 80 per cent of his time, anyway.

The rest, Roberts will spend in a new laboratory Thorn-EMI is helping to build for him in Oxford's department of engineering science. Roberts is the first of a number of high-level appointments which Thorn-EMI's research director, Dr Ken Gray — a former defence scientist who "entered the real world" only last autumn — plans for the company's new £8m central laboratories at Hayes.

BATTLE OF THE SKIES



Two key rivals in the marketplace: the Boeing 747 and the A-310 Airbus

Turbulence on two fronts for Europe's Airbus

By David Marsh in Paris

And on the financial side, the present structure of the consortium — which has no capital of its own and has never published a profit and loss account — has severe limitations. The marketing-oriented management team at the Airbus Industrie headquarters at Toulouse is keenly aware that it has no funds of its own to back decision making.

Airbus admits, for instance, that — partly because of lack of communication among the shareholders — it has no precise idea of the production costs of the aircraft it sells. Under the present management structure, financial control is a relatively minor responsibility.

Underlying diverging philosophies between the Airbus management and the more conservative shareholders. M Pierre Lathiere, vice-president in charge of marketing and the architect of last year's Pan Am deal, says he is now having a tough time persuading share-

holders of the need to boost Airbus's production rates. These have been cut savagely — to an estimated 35 to 38 this year — in response to the airline recession of the last two years.

M Lathiere's optimism is only partly dimmed by the fact that the bulk of the potentially \$2bn Pan Am deal is not yet formally signed.

The order book is sufficient to cover the next two years' anticipated output, and the number of totally uncommitted jets or "white tails" on the Toulouse production line is now down to only nine because of the Pan Am deal. M Lathiere argues that this means he runs the risk of being caught napping if airlines decide they need readily available aircraft.

"We're pushing our partners hard to raise production. We would like at least 40 (aircraft) next year," says M Lathiere. For the first dozen years of Airbus's existence, the lack of

accountability of the marketing team was pushed into the background. Airbus was a one-man show, a one-man product venture, admittedly dependent on government funds for start-up finance but the wide bodied market.

Now, however, the family is being enlarged, with development of the narrow body A-320 started last year and a new twin aisle haul aircraft, the TA 11, on the drawing board. Additionally, key decisions have to be taken soon on renewing the wing elements for the wide body A-300.

And, while the demand for finance is growing, the French, German and British governments — which have put up or committed a total of around \$5bn in loans and guarantees to back Airbus programmes so far — are becoming less enthusiastic about ploughing more tax-payers' funds into project

leader of the Bavarian Christian Socialists and the head of the Airbus supervisory board, who somewhat perversely announced the departure of M Lathiere during a trip to Paris last week, was at pains to emphasise that West Germany firmly wanted the TA 11 to go ahead.

The national carrier, Lufthansa, has always backed the project in preference to the A-320. Airbus is at present discussing with about 10 international airlines possible specifications for the new plane, where it is hoping for a firm go-ahead from shareholders in 1986, ready for introduction into service in 1991. Using some technology already developed for the cost of the Airbus range, the TA 11 would essentially need new wings, with total development costs estimated at about \$1bn.

The lack of funds for the TA11 has prompted the governments in both Paris and Bonn

to look at the possibility of persuading airlines, now starting to improve their financial results, to take a part share in financing the project.

On the immediate question of financing the Airbus image in the U.S. as "normal business partners" has been helped by the fact that finance for the Pan Am deal is being put together on a commercial basis, not through export credits.

Even though execution of Airbus purchases is dependent on Pan Am signing a crucial labour agreement with its unions, he predicts a firm contract (originally expected by the end of last year) will be signed in the first quarter of this year.

Prices for the Airbus jets — just under \$50m for A-310s, just over \$55m for A-320s, and \$40m each for A-300s being delivered under a now-concluded leasing arrangement — were at the bottom end of Airbus's normal range. But M Lathiere rejects charges from Boeing that Airbus can afford to discount heavily because of the strength of the dollar and government subsidies.

"Boeing is not scared of us," says M Lathiere, who flew to New York 15 times last year to stitch together the Pan Am deal. "But they have good reason to be nervous about what we are doing. They now accept that we are going to be around in 20 years' time."

Airbus followed up the Pan Am sale by clinching fresh orders at the end of last year with other traditional Boeing clients, Air India and Turkish Airlines. And it now appears to be inching ahead of Boeing in the final stages of another key Asian deal, with Thai Airways Company.

The basic Airbus logic is that with a firm place now carved out in the world airline markets it has no choice but to continue building up its "family" to match the range offered from Seattle.

Out of the roughly 25 "active" negotiations M Lathiere is carrying out with international airlines, many involve discussions on possible purchases of A-320s and TA 11s. "The broader the family, the more common links in your range, the more you sell," says M Lathiere. "It gets truer every day."

Herr Franz Josef Strauss, the

accountability of the marketing team was pushed into the background. Airbus was a one-man show, a one-man product venture, admittedly dependent on government funds for start-up finance but the wide bodied market.

Now, however, the family is being enlarged, with development of the narrow body A-320 started last year and a new twin aisle haul aircraft, the TA 11, on the drawing board. Additionally, key decisions have to be taken soon on renewing the wing elements for the wide body A-300.

And, while the demand for finance is growing, the French, German and British governments — which have put up or committed a total of around \$5bn in loans and guarantees to back Airbus programmes so far — are becoming less enthusiastic about ploughing more tax-payers' funds into project

leader of the Bavarian Christian Socialists and the head of the Airbus supervisory board, who somewhat perversely announced the departure of M Lathiere during a trip to Paris last week, was at pains to emphasise that West Germany firmly wanted the TA 11 to go ahead.

The national carrier, Lufthansa, has always backed the project in preference to the A-320. Airbus is at present discussing with about 10 international airlines possible specifications for the new plane, where it is hoping for a firm go-ahead from shareholders in 1986, ready for introduction into service in 1991. Using some technology already developed for the cost of the Airbus range, the TA 11 would essentially need new wings, with total development costs estimated at about \$1bn.

The lack of funds for the TA11 has prompted the governments in both Paris and Bonn

to look at the possibility of persuading airlines, now starting to improve their financial results, to take a part share in financing the project.

On the immediate question of financing the Airbus image in the U.S. as "normal business partners" has been helped by the fact that finance for the Pan Am deal is being put together on a commercial basis, not through export credits.

Even though execution of Airbus purchases is dependent on Pan Am signing a crucial labour agreement with its unions, he predicts a firm contract (originally expected by the end of last year) will be signed in the first quarter of this year.

Prices for the Airbus jets — just under \$50m for A-310s, just over \$55m for A-320s, and \$40m each for A-300s being delivered under a now-concluded leasing arrangement — were at the bottom end of Airbus's normal range. But M Lathiere rejects charges from Boeing that Airbus can afford to discount heavily because of the strength of the dollar and government subsidies.

"Boeing is not scared of us," says M Lathiere, who flew to New York 15 times last year to stitch together the Pan Am deal. "But they have good reason to be nervous about what we are doing. They now accept that we are going to be around in 20 years' time."

Airbus followed up the Pan Am sale by clinching fresh orders at the end of last year with other traditional Boeing clients, Air India and Turkish Airlines. And it now appears to be inching ahead of Boeing in the final stages of another key Asian deal, with Thai Airways Company.

The basic Airbus logic is that with a firm place now carved out in the world airline markets it has no choice but to continue building up its "family" to match the range offered from Seattle.

Out of the roughly 25 "active" negotiations M Lathiere is carrying out with international airlines, many involve discussions on possible purchases of A-320s and TA 11s. "The broader the family, the more common links in your range, the more you sell," says M Lathiere. "It gets truer every day."

Herr Franz Josef Strauss, the

accountability of the marketing team was pushed into the background. Airbus was a one-man show, a one-man product venture, admittedly dependent on government funds for start-up finance but the wide bodied market.

Now, however, the family is being enlarged, with development of the narrow body A-320 started last year and a new twin aisle haul aircraft, the TA 11, on the drawing board. Additionally, key decisions have to be taken soon on renewing the wing elements for the wide body A-300.

And, while the demand for finance is growing, the French, German and British governments — which have put up or committed a total of around \$5bn in loans and guarantees to back Airbus programmes so far — are becoming less enthusiastic about ploughing more tax-payers' funds into project

leader of the Bavarian Christian Socialists and the head of the Airbus supervisory board, who somewhat perversely announced the departure of M Lathiere during a trip to Paris last week, was at pains to emphasise that West Germany firmly wanted the TA 11 to go ahead.

The national carrier, Lufthansa, has always backed the project in preference to the A-320. Airbus is at present discussing with about 10 international airlines possible specifications for the new plane, where it is hoping for a firm go-ahead from shareholders in 1986, ready for introduction into service in 1991. Using some technology already developed for the cost of the Airbus range, the TA 11 would essentially need new wings, with total development costs estimated at about \$1bn.

The lack of funds for the TA11 has prompted the governments in both Paris and Bonn

to look at the possibility of persuading airlines, now starting to improve their financial results, to take a part share in financing the project.

accountability of the marketing team was pushed into the background. Airbus was a one-man show, a one-man product venture, admittedly dependent on government funds for start-up finance but the wide bodied market.

Now, however, the family is being enlarged, with development of the narrow body A-320 started last year and a new twin aisle haul aircraft, the TA 11, on the drawing board. Additionally, key decisions have to be taken soon on renewing the wing elements for the wide body A-300.

And, while the demand for finance is growing, the French, German and British governments — which have put up or committed a total of around \$5bn in loans and guarantees to back Airbus programmes so far — are becoming less enthusiastic about ploughing more tax-payers' funds into project

leader of the Bavarian Christian Socialists and the head of the Airbus supervisory board, who somewhat perversely announced the departure of M Lathiere during a trip to Paris last week, was at pains to emphasise that West Germany firmly wanted the TA 11 to go ahead.

The national carrier, Lufthansa, has always backed the project in preference to the A-320. Airbus is at present discussing with about 10 international airlines possible specifications for the new plane, where it is hoping for a firm go-ahead from shareholders in 1986, ready for introduction into service in 1991. Using some technology already developed for the cost of the Airbus range, the TA 11 would essentially need new wings, with total development costs estimated at about \$1bn.

The lack of funds for the TA11 has prompted the governments in both Paris and Bonn

to look at the possibility of persuading airlines, now starting to improve their financial results, to take a part share in financing the project.

On the immediate question of financing the Airbus image in the U.S. as "normal business partners" has been helped by the fact that finance for the Pan Am deal is being put together on a commercial basis, not through export credits.

Even though execution of Airbus purchases is dependent on Pan Am signing a crucial labour agreement with its unions, he predicts a firm contract (originally expected by the end of last year) will be signed in the first quarter of this year.

Prices for the Airbus jets — just under \$50m for A-310s, just over \$55m for A-320s, and \$40m each for A-300s being delivered under a now-concluded leasing arrangement — were at the bottom end of Airbus's normal range. But M Lathiere rejects charges from Boeing that Airbus can afford to discount heavily because of the strength of the dollar and government subsidies.

"Boeing is not scared of us," says M Lathiere, who flew to New York 15 times last year to stitch together the Pan Am deal. "But they have good reason to be nervous about what we are doing. They now accept that we are going to be around in 20 years' time."

Airbus followed up the Pan Am sale by clinching fresh orders at the end of last year with other traditional Boeing clients, Air India and Turkish Airlines. And it now appears to be inching ahead of Boeing in the final stages of another key Asian deal, with Thai Airways Company.

The basic Airbus logic is that with a firm place now carved out in the world airline markets it has no choice but to continue building up its "family" to match the range offered from Seattle.

Out of the roughly 25 "active" negotiations M Lathiere is carrying out with international airlines, many involve discussions on possible purchases of A-320s and TA 11s. "The broader the family, the more common links in your range, the more you sell," says M Lathiere. "It gets truer every day."

Herr Franz Josef Strauss, the

accountability of the marketing team was pushed into the background. Airbus was a one-man show, a one-man product venture, admittedly dependent on government funds for start-up finance but the wide bodied market.

Now, however, the family is being enlarged, with development of the narrow body A-320 started last year and a new twin aisle haul aircraft, the TA 11, on the drawing board. Additionally, key decisions have to be taken soon on renewing the wing elements for the wide body A-300.

And, while the demand for finance is growing, the French, German and British governments — which have put up or committed a total of around \$5bn in loans and guarantees to back Airbus programmes so far — are becoming less enthusiastic about ploughing more tax-payers' funds into project

leader of the Bavarian Christian Socialists and the head of the Airbus supervisory board, who somewhat perversely announced the departure of M Lathiere during a trip to Paris last week, was at pains to emphasise that West Germany firmly wanted the TA 11 to go ahead.

The national carrier, Lufthansa, has always backed the project in preference to the A-320. Airbus is at present discussing with about 10 international airlines possible specifications for the new plane, where it is hoping for a firm go-ahead from shareholders in 1986, ready for introduction into service in 1991. Using some technology already developed for the cost of the Airbus range, the TA 11 would essentially need new wings, with total development costs estimated at about \$1bn.

The lack of funds for the TA11 has prompted the governments in both Paris and Bonn

to look at the possibility of persuading airlines, now starting to improve their financial results, to take a part share in financing the project.

accountability of the marketing team was pushed into the background. Airbus was a one-man show, a one-man product venture, admittedly dependent on government funds for start-up finance but the wide bodied market.

Now, however, the family is being enlarged, with development of the narrow body A-320 started last year and a new twin aisle haul aircraft, the TA 11, on the drawing board. Additionally, key decisions have to be taken soon on renewing the wing elements for the wide body A-300.

And, while the demand for finance is growing, the French, German and British governments — which have put up or committed a total of around \$5bn in loans and guarantees to back Airbus programmes so far — are becoming less enthusiastic about ploughing more tax-payers' funds into project

leader of the Bavarian Christian Socialists and the head of the Airbus supervisory board, who somewhat perversely announced the departure of M Lathiere during a trip to Paris last week, was at pains to emphasise that West Germany firmly wanted the TA 11 to go ahead.

The national carrier, Lufthansa, has always backed the project in preference to the A-320. Airbus is at present discussing with about 10 international airlines possible specifications for the new plane, where it is hoping for a firm go-ahead from shareholders in 1986, ready for introduction into service in 1991. Using some technology already developed for the cost of the Airbus range, the TA 11 would essentially need new wings, with total development costs estimated at about \$1bn.

The lack of funds for the TA11 has prompted the governments in both Paris and Bonn

to look at the possibility of persuading airlines, now starting to improve their financial results, to take a part share in financing the project.

On the immediate question of financing the Airbus image in the U.S. as "normal business partners" has been helped by the fact that finance for the Pan Am deal is being put together on a commercial basis, not through export credits.

Even though execution of Airbus purchases is dependent on Pan Am signing a crucial labour agreement with its unions, he predicts a firm contract (originally expected by the end of last year) will be signed in the first quarter of this year.

Prices for the Airbus jets — just under \$50m for A-310s, just over \$55m for A-320s, and \$40m each for A-300s being delivered under a now-concluded leasing arrangement — were at the bottom end of Airbus's normal range. But M Lathiere rejects charges from Boeing that Airbus can afford to discount heavily because of the strength of the dollar and government subsidies.

"Boeing is not scared of us," says M Lathiere, who flew to New York 15 times last year to stitch together the Pan Am deal. "But they have good reason to be nervous about what we are doing. They now accept that we are going to be around in 20 years' time."

Airbus followed up the Pan Am sale by clinching fresh orders at the end of last year with other traditional Boeing clients, Air India and Turkish Airlines. And it now appears to be inching ahead of Boeing in the final stages of another key Asian deal, with Thai Airways Company.

The basic Airbus logic is that with a firm place now carved out in the world airline markets it has no choice but to continue building up its "family" to match the range offered from Seattle.

Out of the roughly 25 "active" negotiations M Lathiere is carrying out with international airlines, many involve discussions on possible purchases of A-320s and TA 11s. "The broader the family, the more common links in your range, the more you sell," says M Lathiere. "It gets truer every day."

Herr Franz Josef Strauss, the

accountability of the marketing team was pushed into the background. Airbus was a one-man show, a one-man product venture, admittedly dependent on government funds for start-up finance but the wide bodied market.

Now, however, the family is being enlarged, with development of the narrow body A-320 started last year and a new twin aisle haul aircraft, the TA 11, on the drawing board. Additionally, key decisions have to be taken soon on renewing the wing elements for the wide body A-300.

And, while the demand for finance is growing, the French, German and British governments — which have put up or committed a total of around \$5bn in loans and guarantees to back Airbus programmes so far — are becoming less enthusiastic about ploughing more tax-payers' funds into project

leader of the Bavarian Christian Socialists and the head of the Airbus supervisory board, who somewhat perversely announced the departure of M Lathiere during a trip to Paris last week, was at pains to emphasise that West Germany firmly wanted the TA 11 to go ahead.

The national carrier, Lufthansa, has always backed the project in preference to the A-320. Airbus is at present discussing with about 10 international airlines possible specifications for the new plane, where it is hoping for a firm go-ahead from shareholders in 1986, ready for introduction into service in 1991. Using some technology already developed for the cost of the Airbus range, the TA 11 would essentially need new wings, with total development costs estimated at about \$1bn.

The lack of funds for the TA11 has prompted the governments in both Paris and Bonn

to look at the possibility of persuading airlines, now starting to improve their financial results, to take a part share in financing the project.

to look at the possibility of persuading airlines, now starting to improve their financial results, to take a part share in financing the project.

On the immediate question of financing the Airbus image in the U.S. as "normal business partners" has been helped by the fact that finance for the Pan Am deal is being put together on a commercial basis, not through export credits.

Even though execution of Airbus purchases is dependent on Pan Am signing a crucial labour agreement with its unions, he predicts a firm contract (originally expected by the end of last year) will be signed in the first quarter of this year.

Prices for the Airbus jets — just under \$50m for A-310s, just over \$55m for A-320s, and \$40m each for A-300s being delivered under a now-concluded leasing arrangement — were at the bottom end of Airbus's normal range. But M Lathiere rejects charges from Boeing that Airbus can afford to discount heavily because of the strength of the dollar and government subsidies.

"Boeing is not scared of us," says M Lathiere, who flew to New York 15 times last year to stitch together the Pan Am deal. "But they have good reason to be nervous about what we are doing. They now accept that we are going to be around in 20 years' time."

Airbus followed up the Pan Am sale by clinching fresh orders at the end of last year with other traditional Boeing clients, Air India and Turkish Airlines. And it now appears to be inching ahead of Boeing in the final stages of another key Asian deal, with Thai Airways Company.

The basic Airbus logic is that with a firm place now carved out in the world airline markets it has no choice but to continue building up its "family" to match the range offered from Seattle.

Out of the roughly 25 "active" negotiations M Lathiere is carrying out with international airlines, many involve discussions on possible purchases of A-320s and TA 11s. "The broader the family, the more common links in your range, the more you sell," says M Lathiere. "It gets truer every day."

FINANCIAL TIMES SURVEY

Manufacturing Automation

The potential for streamlining manufacturing techniques has never been greater. Advances in computer control enable Western manufacturers to resist competition from low-cost countries.

Pressure to innovate

By Ian Rodger

"INNOVATE OR EMIGRATE." That chilling slogan is being adopted by an increasing number of Western manufacturers, as they face growing pressure from competitors with low-cost operations in developing countries.

Fortunately, the potential for innovation in manufacturing has never been greater than it is today, offering a real alternative to emigration. The so-called advanced manufacturing technologies (AMT) offer major opportunities to makers of most engineered products to cut costs and improve quality and service to the customer.

The key attribute of AMT is flexibility. Machinery has long been available to automate long, high-volume production runs such as those found in the car industry or process industries.

As recently as a year ago, AMT was still considered by many experts to be a "missionary sell." In other

words, it was so new that most potential users, particularly smaller manufacturers, had to be convinced that it was available and worked.

That period is now clearly over. In the past year or so, a number of advanced systems have been installed, proving the practicality of AMT in a wide variety of applications, from sorting shoes to making wiring looms for complex machines. And many more are on the way.

The boom predicted for the suppliers of equipment and software for the shop floor is now occurring, with some sectors, such as robotics and computer-aided design, growing at over 30 per cent a year. By 1990, the entire AMT industry is expected to have annual sales of more than \$30bn, which would be quite an achievement for an industry that is still very much in the embryo stage.

Indeed, it is still difficult to predict the ultimate shape and structure of this industry. A year ago, it looked as if the giant electrical and electronic companies, such as IBM and General Electric of the U.S., were going to march in and take away the leadership of the industry from machinery makers.

But that has not happened so far. Instead, the main contractors on big AMT projects have tended to be the leading specialists in a particular

sector. For example, almost all the major flexible manufacturing systems (FMS) built in the last couple of years have been made by the top machine tool builders, such as Cincinnati Milacron, Ingersoll International, and White of the U.S., Comau of Italy and Schenck of West Germany.

Similarly, the big contracts for materials handling systems have been won by companies such as BT of Sweden and Jungheinrich of West Germany.

However, there is no doubt that the importance of electronics will continue to increase, especially as attempts are made to achieve what is often called "computer-integrated manufacturing" (CIM), that is, linking various islands into integrated systems under the management of computers. And it is reasonable to assume that the makers of computers will play a larger role in the development of these systems.

General Electric of the U.S. has been among the most enthusiastic of the big electric companies about the AMT market, buying Calma, the computer-aided design company a few years ago and taking out licences to make several Japanese robots. It also makes programmable logic controllers (PLCs), motor drives, sensors and lasers.

Westinghouse acquired Union, one of the top U.S. robot makers, for \$107m in 1983.



Computer control (left) of the grinding line for Rolls-Royce RB-211 engine turbine blades

IBM has become one of the leading suppliers of CAD systems and last year made an arrangement to supply its programming aids on Cincinnati Milacron machine tools.

Elsewhere, Britain's General Electric Company has entered the AMT market. Its electrical projects division has undertaken projects at two sister companies and recently set up a joint venture with British Aerospace to do others.

Philips of Holland and Siemens West Germany are other electrical companies showing an increasing interest in AMT markets.

On the other hand, the recent acquisition of Allen-Bradley, the leading U.S. controls maker, by Rockwell, an engineering and aerospace group, for \$1.65bn, suggests other types of companies as well will attempt to take leading positions in the industry.

Many observers have worried about potential competition from Japanese AMT suppliers, having witnessed the Japanese successes in recent years in selling robots, numerical controls and numerically-controlled machine tools in world markets.

But with a couple of exceptions, the Japanese have not been very active in European and North American AMT markets, perhaps because of language and

distance barriers to their providing the high degree of customised engineering required in AMT systems.

Indeed, the main issues in AMT today are not so much technological as conceptual and managerial. For both suppliers and users, the most serious problems are the practical ones of designing sensible systems, choosing the right suppliers of equipment and preparing for the inevitable significant changes in their organisations.

For the suppliers, system programming is a largely uncharted territory and thus a major headache. Ingersoll International is recognised as being among the most advanced users of AMT in its own operations as well as being a supplier of engineering, machines and systems. But Mr. Edson Gaylord, Ingersoll's chairman, remains humble about the U.S. group's software skills and, in particular, its ability to estimate how much software effort will be needed on any given project.

"It's really a struggle. We know how to do it, and we are learning every day to do it better," Mr. Gaylord says.

For users, the key issues at first are those of costs and benefits, but these soon become less important than the human ones. An automated factory, or even a part of a factory that is auto-

ated, operates in a very different way from a conventional one, and different shop-floor organisation structures are needed. In some cases, automation can affect the organisation of an entire company.

Consider, for example, a hypothetical case of a manufacturer with a totally automated production system. From a

Challenge for Management is the theme of the third Financial Times Automated Manufacturing Conference, to be held in London on February 28 and 29. Details on Page 6.

simple electronic signal from a distant salesman that he has won an order, the central computer initiates production, supervises all the machining, handling, assembly and test functions and even generates orders for new materials and tools to replace those used.

This degree of automation, which is beginning to appear in factories already, obviously eliminates a number of manual and skilled jobs. But it also plays havoc with the traditional roles of various supervisors and even directors. In effect, it is the lowly salesman who controls the production line.

"Our lives are almost run by

the system," Mr. John Devaney, managing director of Perkins Engines, the British diesel engine maker, says of the company's increasingly integrated production and management operations. "Management has to make different types of decisions, with much less gut feel. It used to be that if something happened, I would do something or pick up the phone. Now I find myself drawn into a discussion with the computer."

With that kind of change in prospect, managers must plan very carefully before committing themselves to automated systems.

For those who do plan and implement well, the rewards can be handsome. The main tangible benefits offered by flexible automation include reduced work-in-progress, reduced defect rates and faster response to customer demand.

Rolls-Royce, the UK aero engine maker, has financed several million pounds worth of investment in automation at its Derby works solely on savings in working capital. For example, the savings from a new 54m system for machining turbine blades covered the cost of the system in only 12 months.

The company is looking for a similar payback on a \$10.5m

system for machining turbine wheels and compressor discs now being installed. This will come through cutting production lead times from 26 weeks to six weeks and reducing the number of high-value parts tied up in the manufacturing process by about two-thirds.

Rolls is perhaps not an entirely typical manufacturer in that the components it manufactures are extremely expensive. A small high-pressure turbine blade, for example, costs about \$300 and some discs and wheels cost over £10,000 apiece. Thus, the incentive to reduce work-in-progress is enormous. Other manufacturers, whose material costs are less imposing, must look more carefully for other benefits.

Brian Small, joint managing director of Ingersoll Engineers, points out that the financial payback on most flexible manufacturing systems tends to be three to five years, which is marginal for a major investment. But other considerations can swing the balance, such as making the EMS part of an overall automation programme, or achieving better quality and better service to customers.

As one manager said of a big AMT investment, "we have just spent £3.5m on our customers." He was also investing in not having to emigrate.

Introducing the first step-by-step approach to integrated automation. The Allen-Bradley Productivity Pyramid.

PLANT LEVEL
Responsible for overall planning and execution. Requires two-way communication between mainframe computer and lower levels.

CENTRE LEVEL
Schedules production and provides management information by monitoring and supervising lower levels.

CELL LEVEL
Coordinates production flow among various stations. Integrates individual stations into an automated system.

STATION LEVEL
Performs logic necessary to convert input from lower level to output commands, based on direction from above.

MACHINERY/PROCESS LEVEL
Basic interface with plant floor equipment. Sensing and control devices respond to upper level commands.

The Productivity Pyramid is a philosophy, an outlook, a strategy. It visualises a way to maximise productivity. To magnify efficiency. To enhance profitability.

It represents a revolutionary approach to automation control. An approach so comprehensive it closes gaps others can leave open. And integrates 'islands of automation' others let stand in isolation.

The Productivity Pyramid views a plant as five separate and distinct levels. Each representing a different set of tasks. Each benefitting from a different type of Allen-Bradley automation control.

The ultimate goal: To weld each of these levels into a single, seamless automation network. From the top to the bottom. From your mainframe computer to the simplest control device.

The Productivity Pyramid philosophy yields a company ruled from the top down and informed from the bottom up. Unified by information speeding reliably along electronic highways.

Producing a company wiser than ever before. More efficient than ever before. More competitive than ever before. It is the Allen-Bradley Productivity Pyramid.

Today, we manufacture the control hardware to make it work. Today, we produce the communications networks to unify it. Today, we possess the technical skills to help you implement it. But make no mistake.

Allen-Bradley does not construct factories. Nor assemble a system in isolation from you or

your consultants.

Instead we work as partners to make your system a functioning reality. Level-by-level. Stage-by-stage. Product-by-product.

We are already achieving this with many blue chip companies, with companies like yours, committed to prospering in the new industrial age.

If your company shares this philosophy we should get together. Allen-Bradley Companies, Distributors and Customer Service Support are available worldwide.

Write to: Allen-Bradley International Ltd., 35 Friday Street, Henley-on-Thames, Oxfordshire RG9 1AN, U.K.



ALLEN-BRADLEY

We're reshaping the way industry thinks. And works.

Manufacturing Automation 2

Production links incomplete

Design
GEOFFREY CHARLISH

INTEGRATION IS a feature of half the papers to be given in the forthcoming Computer Graphics 1985 conference at the Barbican Centre, in London. Typically such papers describe computer-integrated manufacturing (CIM) as "the way ahead" and as a "do or die" technology.

CIM has its roots in computer-aided drafting and design (CAD), now nearly two decades old. But for those manufacturing companies — albeit a diminishing band — that have yet to deploy CAD, let alone integrate it with anything else, the technology rush must seem a little daunting.

How close are we to having a group of integrated computers run a plan in unison, from product design through engineering, manufacture and test to packaging?

Because different groups of experts inevitably have attacked these areas piecemeal, unison will take time to achieve. Designers of the various automation sectors — CAD/CAM, machining, inspection, assembly, materials handling, autotest and the rest — do not habitually talk to each other; they usually work for different companies.

It is on the cards, however, that CIM will grow around CAD, and the reason lies in what computer people call "the product database" — an electronic store of information about the product automatically produced by CAD.

In CAD, the designer uses screen and keyboard instead of paper and pencil. By moving a special stylus over either the screen or a separate graphics tablet, the designer can "draw" what he or she wants and can call up standard forms (circles, rectangles, cross hatching for example) from the computer's "library," placing them where he wants on the screen.

All drafting is a "cut and try" process and becomes much easier and quicker with CAD. Those who need "to pore over the blueprint" can do so from a paper copy produced at high speed on an automatic plotter — without typing up the CAD workstation. Subsequent drawing revisions are done in quick time on the screen, not



Operator at Perkins using a computer-aided design system to work on a diesel engine drawing.

laboriously on the drawing board.

The computer's software will turn the designer's front, side and top elevation into a 30 "wire form" representation of the product which he can then rotate, zoom in on, compress, stretch and otherwise manipulate. Hidden lines can be removed, to improve reality, and with more expensive software, the surfaces can be filled in to give a 3D colour "model" almost indistinguishable from a colour photograph.

The salient point, however, is that the product is now completely defined geometrically — and much stems from that.

For example, by adding materials density data and more software, volumes and weights become available for bill of materials purposes. Using the same data, tool cutting paths can be worked out on screen before tool ever touches metal. The system can then be made to cut a punched tape for the machine tool (or nowadays, send signals direct to the tool's memory). This CAD extension is called CAM (computer-aided manufacturing).

Another derivative — from the same database — is CAE, or

computer-aided engineering. With the geometry and composition defined, engineers can apply programs to reveal behaviour under mechanical or thermal stress.

It is even possible to simulate a whole plant with screen and computer before it is even built as has been done by Istel of Oxford.

CAD/CAM/CAE, at one time requiring large, expensive computers, is coming downmarket with at least 20 companies in the U.S. offering systems based on the personal computer. The

Cheap

reason is that cheap, dense semiconductor logic and memory is producing microcomputers with the power of mid-1970s minicomputers, bringing the technique within the reach of many more engineers.

Lower-cost PC-CAD has presented great opportunities for smaller vendors, of which Autodesk in the U.S. is prominent with its Autocad PC-based mechanical engineering software package — it may have won 25 per cent of the 1984 PC-CAD sales of U.S.-based companies

according to market research company Datatech of Massachusetts.

But overall CAD market leaders computervision, IBM, Intergraph, Calma, McAuto and Applicon are quietly coming round to PC-based systems, even though these currently form only a small percentage of the total market.

Even with no PC-based surge, the CAD industry is set for another bumper year, according to Datatech. Sales of the U.S.-based companies alone will exceed \$2.5bn and the growth figures for 1982, 1983 and last year were 28, 40 and 52 per cent respectively.

A particular flip to sales resulted from the introduction of 32-bit computers into systems, making them able to carry out complicated tasks much more quickly with less waiting for things to appear on the screen.

At the top of the market, Computervision and IBM continue to slug it out with Intergraph not far behind, according to Datatech, which puts the 1984 sales figures at about \$560m, \$520m and \$470m respectively.

PROFILE: PHILIPS

Strong presence in control systems

PHILIPS of Holland is one of those companies you would expect to be increasingly interested in the manufacturing automation business.

It has a lot of expertise from automating its own substantial manufacturing operations as well as established positions in the machine and process control businesses and project management.

The company has indeed been devoting more thought and effort to its position in the manufacturing automation area recently. "This is a major growth market," says Mr. Eric Baan, managing director of Philips commercial, scientific and industrial division. "If we were not in it now, we would miss a big opportunity."

Philips' presence in the sector up to now has been through its numerical control products. The company has been making numerical controls for machine tools since 1963 when it demon-



strated one of the first European systems on a Schenck machine tool. Like other U.S. and European suppliers, it was outflanked by Japan's Famic in the late 1970s, but it has held on to a solid 10-15 per cent share of the European market, behind Siemens and Famic.

Its main NC customer is Mabo, the leading West German machine tool maker which takes about 1,200 controls a year. Contrary to reports that Philips was retreating from the field, the company says its sales were up 60 per cent in 1984, and it is increasing its product and market development efforts.

For example, it is trying to convince some European machine tool builders to replace Famic controls with Philips.

Mr. Rudiger Konkel, marketing manager for NC products, acknowledges that Philips output of 1,800 a year is only about a tenth of Famic's, but the Dutch company has been able to find competitive advantages elsewhere.

"We have developed three dimensional graphics which are ahead of the others, and we try hard to adapt the control to the customer's machine so the user can get the most out of it."

Later this year it plans to introduce five and six-axis controls. It is also alert to the growing demand for remotely controlled NC and is modifying its controls so they can be linked to hierarchies of computers.

Mr. Konkel believes a shakeout is at hand in the NC business but is convinced that Philips will survive. "In every industrialised country now, you find there are four or five machine tool builders that have 80 per cent of the CNC machine tool market. So as a control supplier, we are vulnerable. We have to keep looking for the next big customer."

Apart from its NC base, the company has brought together a few developments in automating its own production. For example, an automated transport system for small sub-assemblies is being marketed for Philips by IBM. An electronic identification system for components, called Ident-Vision, has been developed and sold successfully to some automobile manufacturers. Its advantage over established bar code systems is that the part does not have to be close to the camera. Also, the label does not have to be oriented in a particular way.

The companies most recent offering is a general software package called a distributed real time multiprocessor system (DRM). As the name implies, it is designed to speed up the programming of complex production management systems in which a hierarchy of computers co-ordinates the activity of a number of machines and materials handling devices.

It consists of an operating system for distributed computer systems and a set of software tools for developing application programs. Mr. Baan says the idea for DRM came from the group's research laboratories two years ago. The problem was to convince Philips management that it should be marketed as well as used within the group, and this was achieved last autumn.

Ian Rodger

Data networks: potential still being explored

DATA communication is a key factor in machine-shop automation. Increasingly, individual machine tools in the more advanced engineering factories are becoming connected by data highways that are analogous to the telephone systems that link the world's homes and offices.

Whereas the ordinary telephone network carries the sound of people's voices, the factory highways act as a conduit for binary-coded messages sent between microcomputers in the individual sets of hardware. The messages could be instructions from supervisory computers to other grades of machine further down the plant hierarchy that may do physical work — such as joggling lumps out of a metal block with a cutting tool.

Alternatively, the data network could transfer signals between the different machines that keep each informed about what the others are doing. In this way, for instance, a robot that has to lift items from a conveyor on to a warehouse pallet would be told of any failures in the machine tools that are fashioning the items. It would thus receive an early warning of any changes in the production routine that would affect its own operation.

The commonest sets of factory equipment linked in this manner are called flexible manufacturing systems. These are networks of computer-controlled machine tools supervised by large computers. Such systems often incorporate automatic transfer mechanisms, sets of robots or unmanned carts for carrying metal parts in varying stages of completion between the different tools.

The supervisory computers send instructions to the tools on matters such as how to fashion different parts, the order in which the metal components will be presented to the machines, and the total numbers of finished products that are needed in a particular day.

Flexible manufacturing systems are used primarily because they can turn out in an automated fashion different types of products within a family of manufactured items. By changing the programs in the main computers, for instance, the system can be ordered to make sets of, say, gear-box casings that are all slightly different in shape and so cater for a range of customers.

With conventional automated systems of the type devised a decade or so ago, the engineering plant was limited to making objects only in long, unbroken runs in which the type of product stayed the same.

Relatively few companies implement flexible manufacturing systems by ordering new equipment and starting from scratch. This strategy would cost several million pounds for a medium-sized system. In a more common approach, manufacturers link up computer-numerically-controlled machine tools that they already own. Such machines are programmed either by operators who insert commands by a keyboard in the side of the tools or (more usually) by white-collar workers

of plant hardware under their control. These tools, known as "black boxes," act as interpreters between the different types of hardware.

Two British companies, Tanager of Davenport and Precision of Stoke on Trent, are among the leaders in supplying this kind of device. Konberg of Norway is another company active in this area.

Flexible manufacturing systems do not necessarily operate in isolation. They can be linked to other parts of the factory, for example the design and planning departments and the accounts office. Crucial in such networks of hardware are the communications links that carry messages between the computers on the factory floor and those in other parts of the plant.

If the system is working properly, accounts staff should be able to ask their computers to find out the impact that changes in factory-floor production are having on orders and work-in-progress. In this way, they would be able to see clearly how hiccups in production affect the financial performance of their company.

If the problems over data distribution can be overcome, flexible manufacturing systems should cut running costs in many areas of small-batch production. A large saving is in the reduced requirement for operators.

In a system to produce bomb-release mechanisms for military aircraft operated by Normalair-Garrett in Okehampton, the company needs only 13 employees who work around the clock in shifts. A workshop that makes the same number of items (70 a month) using conventional techniques would require a staff of 50.

A Citroen factory in Mondon, France, that makes car parts such as clutch housings and shafts with a flexible manufacturing system needs only 28 workers in this part of the plant — a reduction of nearly 50 per cent compared with the normal way of working.

On top of the quantitative savings, proponents of such flexible systems say that there are also improvements in the quality of finished parts. And more efficient feedback techniques by which managers can keep in touch with events on the factory floor.

Crucial issues of change

Work practices

BRIAN GROOM

FACTORY AUTOMATION brings with it a host of issues beyond the introduction of the equipment itself. It often requires changes in skills and working practices among the workforce, retraining, changes to the organisational structure and industrial relations within the plant, and — crucially — new management expertise. Many companies are suffering problems in one or more of these areas.

It is not putting them off from stepping up capital investment in automation. A recent survey of 190 senior managers in the manufacturing sector, carried out with the help of Burroughs Machines, showed that average capital budgets increased by 17 per cent in 1984-1985, compared with 12 per cent the year before, an overall rise of 31 per cent in two years.

In real terms, capital spending was about 20 per cent higher than two years before. The number of companies with problems had increased from 47 to 56 per cent, compared with an earlier survey. This probably represented not so much an underlying deterioration in their competence as the fact that more were embarking on automation seriously and pushing back the boundaries of their experience. Hence the number of companies which felt they had insufficient technical expertise increased from 15 to 23 per cent.

Most seriously, however, it is on the technical competence, planning and control skills of line management that the heaviest demands are being made. Nearly 30 per cent of respondents to the survey listed line managers and supervisors as a problem area — four times higher than those who regarded shopfloor workers as a problem.

Change on the shopfloor is, however, at the heart of how successfully companies cope with the introduction of new technology. A great deal of attention is being focused on the role of maintenance craftsmen — only a small proportion of the total workforce, but vital to ensure uninterrupted production as micro-electronics is introduced to process control.

According to research by the London-based Technical Change Centre, changes are under consideration in industry which could radically alter the traditional organisation of maintenance craftsmen into "electrical," "mechanical" or "instrument" trades.

The centre has studied the food industry, where 41 per cent of establishments have introduced microprocessor-based control equipment. Fifty-three per cent said their needs were to reorganise their maintenance workforce, and in half of these companies proposals were already under discussion.

Colman's, the Norwich food manufacturer, for example, has reached an agreement with its unions aimed at achieving a multi-skilled workforce, because new plant such as high-speed packing and bottling lines require extra skills.

The aim in many companies is to replace faults more rapidly on new machinery which combines mechanical, electrical and pneumatic elements. At present delays are occurring while different craftsmen decide in whose trade the fault lies.

Five new craft occupations may emerge: craft technicians, "trained in a range of skills like electronics, hydraulics and diagnostics," "system specialist craftsmen" who understand how integrated plant behaves as a whole; "machine-specialist craftsmen" who can do the piece of tasks on a single complex piece of equipment; "dual-trained craftsmen" who acquire a skill in a second trade, like a mechanical fitter undertaking electrical work; and "cross-trained craftsmen,"

who learn extra skills within their original trade, like an electrician learning electronics.

In the long-term there may be "mechanicians" who move across the mechanical, electrical and microelectronic fields, and "user-maintainers" who operate and maintain a particular machine. The trouble is that progress throughout industry is slow: there has been more talk than action on introducing new craft grades.

As an interim measure, some companies are developing craftsmen in multi-skilled teams. Some are asking semi-skilled production operators to become more responsible for identifying minor faults and making routine repairs.

Training is another problem. Some companies are slow in identifying their needs, others not being sure of what they want until the new equipment is in operation. There is a growing need for more training in diagnostics, electronics, and cross-trade skills.

The important thing for companies is to achieve the degree of change at all levels of the factory. It is no use having a multi-skilled shopfloor workforce if they get no opportunity to use their new skills, or if routing workers between jobs makes the factory less efficient than it was before.

CAD/CAM...FMS
linked software
microchips...
robotics...

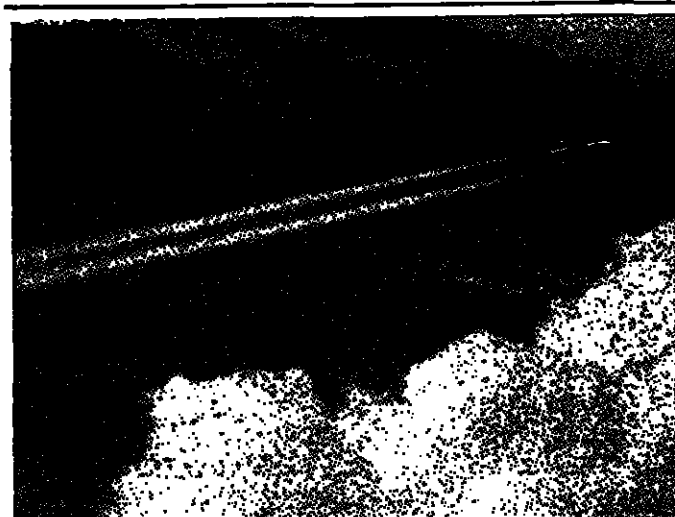
The Manufacturing Systems approach

SEND FOR YOUR FREE COPY NOW...

and discover how your company might benefit from the application of powerful modern manufacturing techniques.

Contact Marketing & Licensing Department
PERA Melton Mowbray
Leicestershire LE13 0PB
Tel 0564 64132 ext 416

PERA
the production people



When would you rather find out your product's defective?



Some products just can't afford to go wrong. Like aircraft, food or drugs. So, if there is a fault, you must know how many others there might be and where to find them.

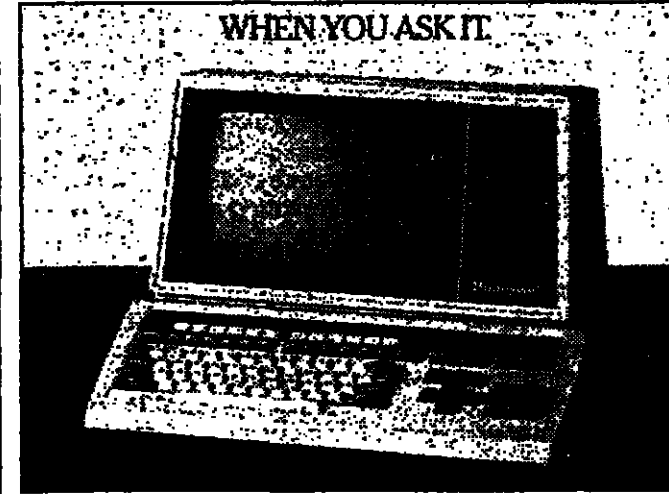
The unique Product Traceability function of H.D.M.S. (it stands for Honeywell Distributed Manufacturing System) will tell you exactly that.

It keeps an accurate record of every component in your product, to DEFO521.

So once you find one fault, at the touch of a button you've found them all.

And the H.D.M.S. production control system has many more unique features.

For information on H.D.M.S. and a free



copy of The Assessment Handbook for Production Control Systems (120 questions to ask when choosing a production control system) clip and send the coupon below or phone on 01-568 9191 and ask for ext. 2471.

Please send me more details about H.D.M.S., plus The Assessment Handbook for Production Control Systems. To: The Information Centre, Honeywell Information Systems Ltd, Great West Road, Brentford TW8 9DH.

Name _____ Position _____
Company _____
Address _____
Tel. _____

Together, we can find the answers.

Honeywell

Manufacturing Automation 3

Advanced techniques being explored

Machining
PETER MARSH

WITH THE TREND in machine shops around the world increasingly on linked systems in which computer commands replace supervision by a human operator, machine-tool companies face some special problems in redesigning their products.

Until relatively recently, a machine-tool company designed its hardware in the knowledge that a person would be directly in charge of the equipment for virtually all its running time. Changes in tools and workpieces, and monitoring of the machinery to ensure efficient operation, were functions that could be left to the human supervisor.

In many machine shops today, individual sets of hardware operate for much of the time unattended. The nearest operator may be the length of the factory floor away. This puts the onus on the equipment makers to produce techniques to fit in with this way of working — which the UK Machine Tool Industry Trade Association calls "minimally manned manufacture".

The association, based in Macclesfield, has a research budget of about £1m and much of this is geared to exploring these new techniques.

Machine tools are traditionally divided into those in which the tool is stationary and the component being cut rotates — lathes and other "turning" machines — and equipment such as machine centres in which a rotating tool cuts, drills or otherwise fashions an immobile workpiece.

As a general rule, it is easier to automate the second type of machine. In this hardware, raw components can be presented to the rotating tools fixed into position on pallets. Different pallets can be slotted into place relatively easily by automatic means.

A set of computer commands

instructs the tool on issues such as at what speed to turn and for how long. Commonly, the computer also controls selection of one out of up to 50-100 individual tools which are stored in a carousel. In this way, the hardware can perform a wide variety of jobs, choosing a new tool for each task.

Hardware such as a lathe, however, presents different problems. Here the chuck of the machine holds in place a workpiece of cylindrical shape while it rotates and meets the stationary cutting edge of the tool. To change automatically workpieces of widely different sizes and shapes has been all but impossible until recently.

This is because the designer must build into the machine a way of altering not only the raw component but the chuck that clamps the part in place.

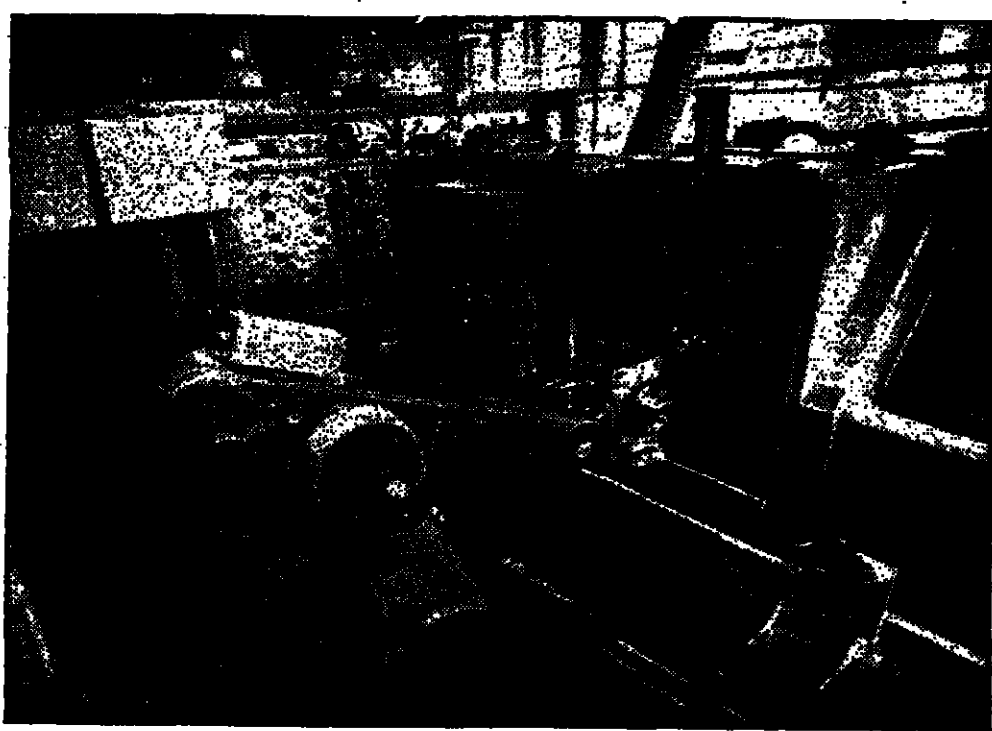
Several manufacturers have addressed this challenge over the past few years. They now offer systems in which robot-type devices load and unload two parts and also change over the chucks and tools. The companies tackling these problems include Sandvik of Sweden, Traub of Germany and Yamazaki of Japan. Among the companies that include robots with their turning hardware for workpiece handling are T. I. Churchill of Britain and Okuma, a Japanese company.

An often ignored area of machine-tool research is fixture design. The fixtures clamp a piece of metal normally a cast or a piece of steel required for the final product, on to a pallet used in conjunction with the machining centre. In many machine shops, engineers use standard systems of fixtures.

With these, blocks of metal of widely different shapes can be held in position using the same set of modular clamping elements. The latter are joined together in the manner of Lego building blocks.

Two well-known sets of fixture systems are Brico, sold by Parker Precision, and Holder, sold by Wix and Royd.

In some automated machining systems, it is important that the



A Daiichi-Sykes PT 600 robot machining car axle hubs at Jaguar, Coventry.

pallets leave the machine in a highly clean condition. This is so that swarf or dirt does not interfere with the fixture setting arrangements when workers load the pallet with a new lump of metal.

In some systems, a robot is deployed immediately after the pallet disengages from the machine. The robot directs a stream of water at the pallet to rid it of any loose bits of metal.

Chironix Milacron has used its TS robots to tend machining spend much more effort fashioning centres in this way.

Improvements in traditional areas such as tool and spindle design. Thus there are continual attempts to increase the work-life of tools such as drill bits or cutters, or to ensure greater flexibility in spindle speeds.

A new and increasingly important area for machine tool research concerns monitoring systems. With the move towards "minimally manned manufacture", designers must build into their machines sensors to perform the checks that a decade or so ago would have been left to people. Instrument makers such as Rank Taylor Hobson of Leicester play a part here in producing the monitoring hardware.

A variety of microchip-based sensors can measure factors such as cutting depths or tool wear and feed information along data highways to supervisory computers. The centre for micro-engineering and metrology at Warwick University, run by Prof David Whitehouse, is one of Britain's leading centres in this area of sensor technology.

It is supported by about

£200,000 worth of research grants from industry, of which a substantial proportion is based outside the UK.

Vision systems in which a TV camera monitors parts of a machine's operation, with the images being analysed automatically by a computer, constitute another important type of monitoring device. The hardware can keep a check on aspects such as tool breakdown and whether the machine is generating too much swarf.

Other machinery systems use touch sensors to monitor the position of tools or workpieces. A British leader in this area is Renishaw, which makes devices called touch-trigger probes to measure position. Among the other companies that sell equipment to monitor tool life are Yamazaki, Gilde-meister, Emag and SMT.

PROFILE: WHITE CONSOLIDATED INDUSTRIES

BY IAN RODGER

Working hard to maintain expertise

FACTORY AUTOMATION buffs will undoubtedly argue for a long time over who built the world's first flexible manufacturing system (FMS).

Cincinnati Milacron and Ingersoll International have claims, but so does WCI Manufacturing Systems.

Its system at Sundstrand Aviation in Rockford, Illinois was installed in 1965 for \$8m and it is still going strong, making aluminium components for aircraft engines, pumps and fuel pumps. The eight milling machines in the line use 40 tools to make 400 different parts.

That system was built by what was then the machine tool division of Sundstrand, itself. But in 1977, White Consolidated Industries, the diversified home appliance and heavy equipment group, acquired Sundstrand's machine tool division as part of a strategy to rejuvenate its own machine tool business.

WCI already owned the Bullard Company, which made vertical turning machines but had not kept pace with the emerging electronic technology. Sundstrand, on the other hand, had been a pioneer in introducing

numerical controls to its milling machines and had developed a line of machining centres. It also produced its own numerical controls.

The acquisition put WCI in the top ten of U.S. machine tool builders in terms of sales, an unusual position for a conglomerate. "In the past,

conglomerates have not had much success in producing machine tool business, and it remains to be seen if WCI will prove an exception."

So far, the financial results have been nothing to celebrate. Like all U.S. machine tool builders, the company has been hit hard by the slump in orders in the early 1980s. WCI does not publish separate figures for its machine tool business, but these make up the bulk of the \$249m sales in the machinery and metal castings division in 1982, down 46 per cent from 1981.

Moreover, the division had losses in both 1982 and 1983. However, there is no evidence that the group's enthusiasm for the machine tool area is flagging. Mr Ray Heist, chairman, said in the 1982 annual report that WCI saw the market for flexible manufacturing systems as "a major growth and profit opportunity," and this belief was reaffirmed in the third quarter report last year.

Mr Michael Davis, president of WCI Machine Tool, is even more enthusiastic, wanting to lead the recovery of the U.S. machine tool industry. "We have unique opportunities to distinguish ourselves," he says.

WCI is in the first rank of builders of automated systems, and is working hard to maintain its expertise in this area. For example, it claims to be ahead of most of its competitors in the technology of so-called distributed numerical control (DNC) systems. These are systems in which application programs for machine tools are fed from remote computers.

In 1982, a new division called WCI Manufacturing Systems was set up to concentrate on the flexible manufacturing system (FMS) market, where Sundstrand was already well established. It and WCI have installed 10 systems to date, and the customer list includes Caterpillar, Tractor, Boeing and Detroit Diesel Allison.

According to a recent study by First Boston, WCI is now one of the top three U.S. suppliers of FMS, alongside Cross and Trecker and Cincinnati.

WCI established a presence in Britain in 1980 when it bought the old BSA machine tool business from the liquidators of Alfred Herbert. In 1982, it started to manufacture Bullard lathes as well as the BSA automatic lathes and more recently has begun to make Sundstrand machining centres.

Employment has grown at the Kils Green factory from 250 in 1982 to 305 today and the company hopes it will rise to 450 by next year. About 40 per cent of its volume to date has been in making machines and components for shipment to the U.S. parent company, but it is optimistic about landing its first FMS contract in the UK in the near future.

PROFILE: KEARNEY AND TRECKER MARWIN

BY ANNA KOCHAN

Carving a niche in the market

POISED, READY to face the future is how one of Britain's struggling machine tool companies, Kearney and Trecker Marwin, describes itself. Having gone through the most horrendous recession, as have most in KTM's business, the company is now busily carving itself out a niche in the market, and one which is beginning to extend across the world.

Brighton-based KTM is part of the £600m engineering group, Vickers. Its key product is a range of machining centres and, in the past, it has created a specialised field of business in two main areas: linear and rotary transfer lines for the automotive and related high volume industries; and precision centres to the aerospace industry.

Activities used to split three ways between the automotive, aerospace and general engineering industries. But that has all changed.

With the recession in the early 1980s, hitting home and export markets alike, KTM was forced to analyse its traditional markets and take severe steps to restructure the company. To begin with, the automotive industry no longer wanted the dedicated production lines it had previously invested in. Market forces demanded greater flexibility, shorter lead times for new products, and also more frequent changes of model.

And looking at the aerospace market, the prospects for profit growth potential. Where there

did seem to be room for expansion was in the market for linked machining systems for general engineering companies.

The machines KTM designed to satisfy the new requirements are highly sophisticated. They are all capable of doing a variety of jobs that they can be linked into automatic systems. They have large tool magazines to enable a large variety of operations to be performed on a number of different parts using the same equipment. In addition, advanced numerical controls and an extensive range of software provides the capability to run the machines unmanned.

Not only has the product range been redesigned to supply systems capabilities but the company has also been reorganised in a number of ways. First, a manufacturing group has been set up to be responsible for multi-machine installations.

It provides single-source responsibility for systems which can include training, washing and inspection equipment from a variety of vendors, as well as KTM machines. This single-source responsibility is what the customer wants, says Mr Jim Dawson, manufacturing systems director.

Collaborative agreements have also helped to create the strong systems capability KTM now possesses. One partner in such an agreement is Siemens of West Germany, which jointly produces and collaborates on software developments.

On the hardware side, a manufacturing agreement with Mitsubishi Heavy Industries of Japan provides KTM with product range which compares favourably with any manufacturer in the world, KTM claims. The first Mitsubishi-designed machine was a pallet unit in Brighton later this year.

Already, KTM's restructuring has proved itself to be on the right lines. When the company won its first major FMS order worth £2.5m in 1983, the customer, British United Shoe Machinery Co, of Leicester,

claimed that no other company would tackle the project with the flexibility required and that KTM's solution was the best for the investment available.

Following hot on the heels of the BSMC order came one from Austin Rover to produce a number of different models of cylinder head, a contract worth more than £2m. The installation will incorporate assembly, washing and inspection equipment as well as 12 KTM machining centres.

Automation, made possible by 12 robots and 10 automated guided vehicles, will enable the system to run 24 hours a day to produce 3,000 parts a week in fully-assembled and tested matched sets.

Another manufacturing system which KTM is also building for Austin Rover involves two KTM machining centres, a lathe, cam grinder and spark erosion machine for the production of prototype parts.

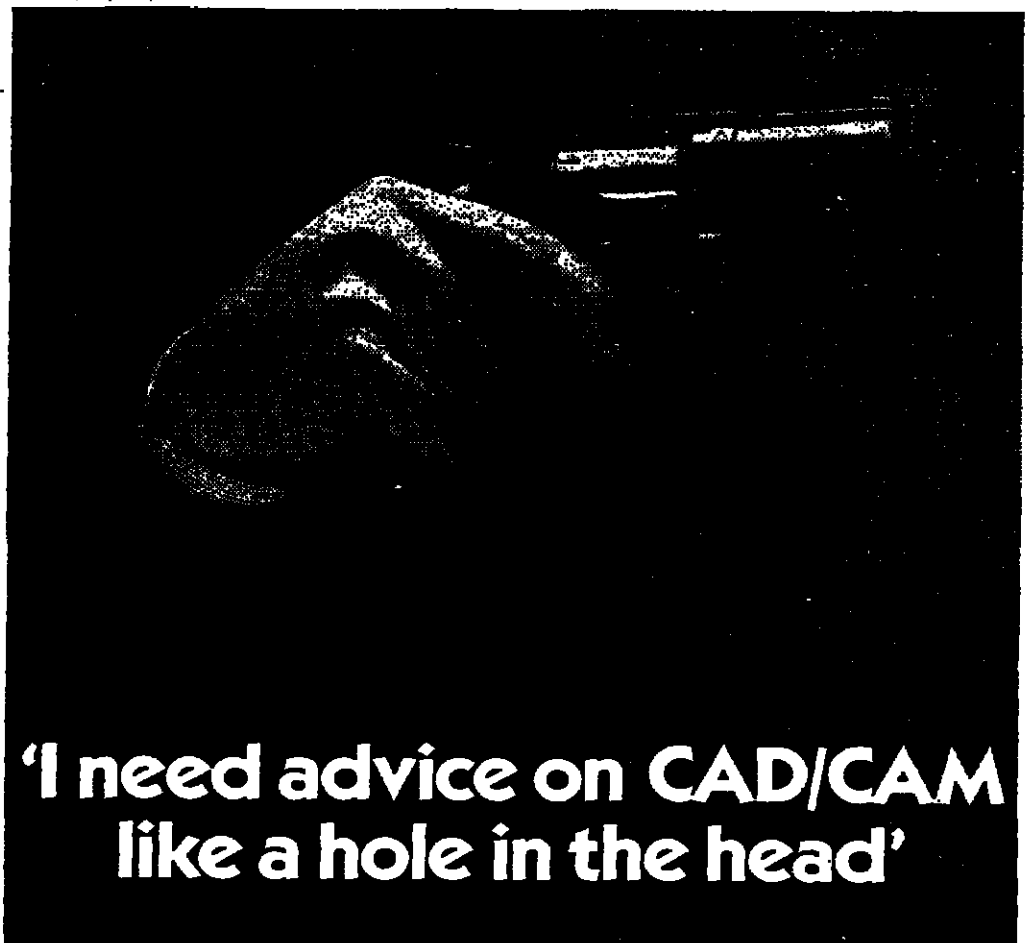
With these experiences of project management and manufacturing systems, KTM has certainly established itself as a major force in at least in the part of the market the future looks optimistic.

Another hope for the future concerns KTM's export market. Only 25 per cent of the company's £15m turnover currently comes from the export market. Mr Dawson regrets that it should be so small and has set his market strategy to put this right.

First, the agreement with Mitsubishi concerns marketing rights in Europe and has enabled KTM to reorganise its distribution network in Europe on a more comprehensive level. Second, he has recently concluded an agreement with the Hindustan Machine Tools Co of Bangalore, India, whereby KTM will ultimately manufacture KTM machines at its Hyderabad plant. At this stage, KTM is supplying lots of parts to the Indian company.

And finally, KTM is in the midst of discussions about a marketing agreement with a U.S. dealer, but no announcement has been made yet.

Anna Kochan is editor of FMS Magazine, published by IFS (Publications).



'I need advice on CAD/CAM like a hole in the head'

So you think you know enough about CAD/CAM and the other computer graphics technologies? Or maybe you've been hoping that if you ignored the subject it would simply go away.

Think again. Over the next two years industry throughout Europe will be spending more than one billion pounds on these technologies. A figure which shows how indispensable they are to British companies which want to remain competitive.

This means you. Now the UK has an event devoted to this rapidly expanding world, CGUS. Sponsored by the World Computer Graphics Association.

More than 100 speakers and 50 companies demonstrating the benefits. Big improvements in productivity. Dramatic reductions in lead times. Plus major improvements in management information.

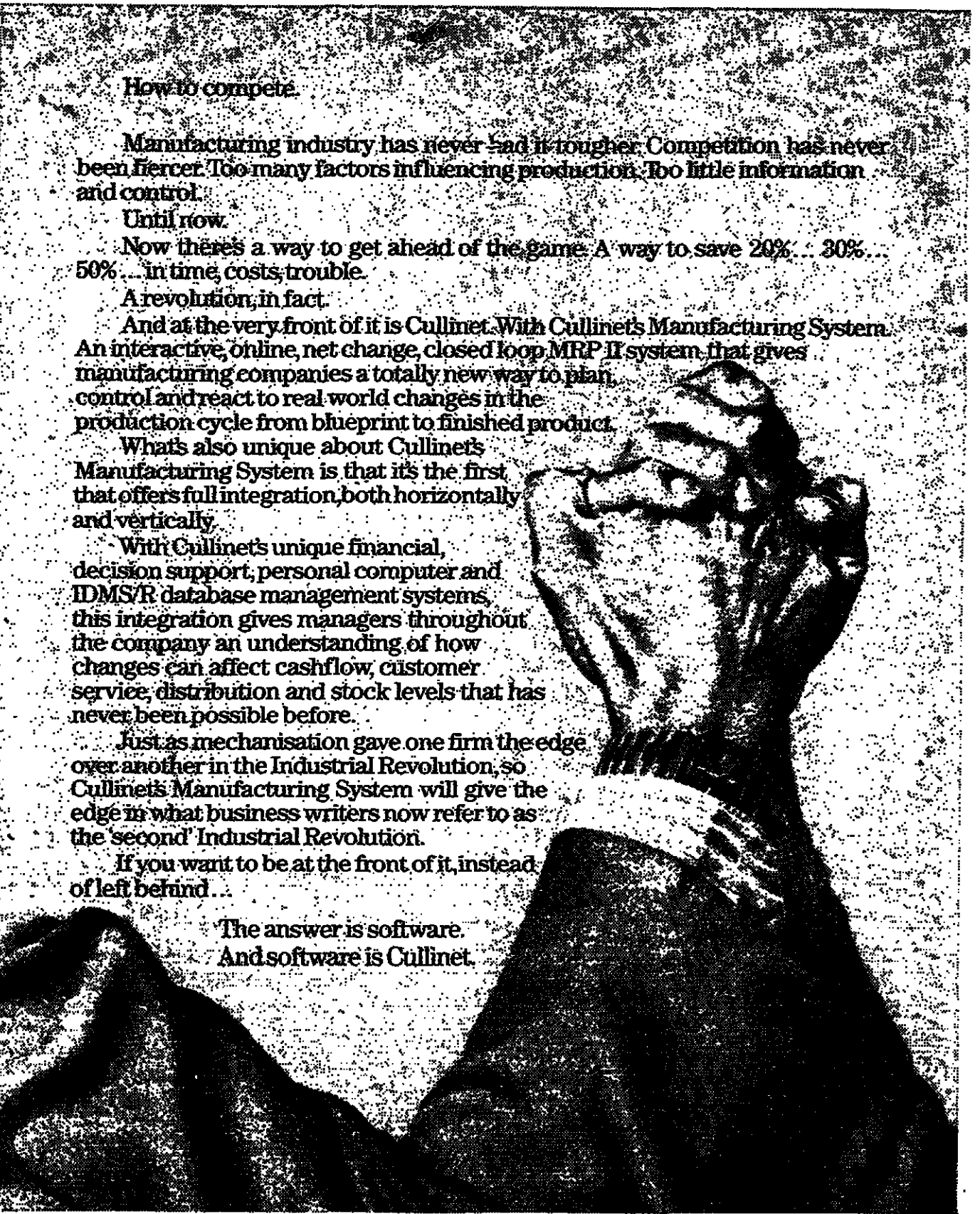
Your opportunity to get ahead of the competition. A three-day user show and conference. 19-21 February at London's Barbican Centre. With a special one-day programme on 21 February for senior management which concentrates on negotiating with suppliers and financing the investment.

Among those taking part are Austin Rover, BP Computervision, Ferranti, GEC, IBM, Intergraph and the Imperial Group.

CGUS is not only for engineers. It's for all those managers and directors, concerned with efficiency, productivity, investment and profit.

COMPUTER GRAPHICS USER 85 'Ignore it at your peril'

Computer Graphics User 85



How to compete.

Manufacturing industry has never had it tougher. Competition has never been fiercer. Too many factors influencing production. Too little information and control.

Until now.

Now there's a way to get ahead of the game. A way to save 20% - 30% - 50% in time, costs, trouble.

A revolution, in fact.

And at the very front of it is Cullinet. With Cullinet's Manufacturing System. An interactive, online, net change, closed loop MRP II system that gives manufacturing companies a totally new way to plan, control and react to real world changes in the production cycle from blueprint to finished product.

What's also unique about Cullinet's Manufacturing System is that it's the first that offers full integration, both horizontally and vertically.

With Cullinet's unique financial, decision support, personal computer and IDMS/R database management systems, this integration gives managers throughout the company an understanding of how changes can affect cashflow, customer service, distribution and stock levels that has never been possible before.

Just as mechanisation gave one firm the edge over another in the Industrial Revolution, so Cullinet's Manufacturing System will give the edge in what business writers now refer to as the second Industrial Revolution.

If you want to be at the front of it, instead of left behind...

The answer is software. And software is Cullinet.

Cullinet Software Limited, Cullinet House, The Broadway, Stanmore, Middx HA7 4DU. Telephone: 01-954 7333. Telex: 885100.

Manufacturing Automation 4

A growing need in production areas

Storage

ANNA KOCHAN

FULLY-AUTOMATED warehouses are beginning to spring up everywhere. It is a reasonably sudden change towards automation and one that has not been particularly triggered by any great advance in storage technology but rather by the general trend towards the adoption of computers to aid production.

The number of fully automated stores in the UK is currently about 100. Some of these date back about 20 years. In the early days, the applications which took up the new

computer technology were in distribution warehousing. Today that has all changed with the growing need to incorporate stores in the production environment.

A traditional warehouse for distribution purposes stores finished products awaiting delivery to the customer. It is generally 20m-25m high and has a huge capacity. For example, a warehouse built by UK-based specialists, Dexon, for the Swedish company Frigoscandia at its Bristol centre, has 5,000 spaces.

This is in fact a fully automated cold store and the first of its kind in the UK. It requires only two operators to keep it running and is safe to the extent that they need only stand at a computer terminal and key in details of

what goods are being stored or need to be retrieved.

Stacker cranes fitted with microprocessor controls will then automatically take the goods from the operators' load station to a location in the high bay racking dictated by the warehouse's supervisory computer. This computer operates a stock control system and uses critical path analysis to minimise crane movements.

While distribution warehouses continue to be built, and about 50 per cent of the automated warehouses on order currently are for distribution, the growing area is in the production environment.

The automated manufacturing systems now being installed, particularly in mechanical engineering industries, need to be serviced by a

highly-flexible, easily-accessible store if they are to function most effectively. And this is the same whether manufacture involves sheet metal work, machining, assembly, or all three.

Items stored in this environment would include both finished products as well as raw materials, part-finished goods and tooling accessories.

Automated stores for the production environment run on much the same principles as the distribution warehouses but they are much lower, usually around 10m in height, and they do not need to be so large. In addition, they are usually linked into an internal distribution system, often making use of Automated Guided Vehicles (AGVs).

Thus, an AGV will deliver goods for storage to a load station from where a stacker crane will automatically pick them up and transfer them to the store, all instructions coming from a warehouse control system which will be linked into a production control system.

The Swedish-owned company BT Rolatrue is well experienced in the type of application and currently reports that it is snowed under with inquiries in the UK.

Typical

One system now being built for a UK aerospace company is typical. It uses two unmanned stacker cranes, each of which serves two racks either side of it. The cranes deliver goods on demand to a handling system which serves a 70-80 distribution points around the shop floor. The store is 12m high and contains space for 800 pallets.

Another of BT's warehouse installations has recently been opened at Perkins Engines, Peterborough. Here an automated store, costing about £2.5m, will eventually be integrated with an assembly line for cylinder heads. The main benefit is expected to be savings in inventory. It will also enable Perkins to keep to its delivery schedule more consistently.

A high bay store with 13,600 locations and low bay store with 3,450 locations are included in the warehouse which at any one time holds about £10m-worth of stock and equipment.

Another major supplier of automated warehousing equip-

ment in the UK is Babcock FATA which has recently been involved in a £2m contract for Pedigree Pet Foods in Milton Keynes.

Frozen fish and fresh meat products are being stored in a cold store which runs 24 hours a day, seven days a week, 48 weeks a year. The bins containing the meat products are delivered to and from the stacker cranes by conveyors.

Not everyone wants to build a completely new warehouse as in these examples. It is not really possible to convert an existing manual warehouse to full automation but it is possible to achieve some of the benefits by introducing a computerised information system.

Memories

This is what has happened at a United Biscuits distribution warehouse in Gloucester which used to rely entirely on paper work procedures and stocklist truck drivers' memories to keep track of its stock.

At the end of last year, UB began running its Gloucester warehouse on a paperless basis using Computatrak, a product developed by UB's subsidiary Process Computing Ltd (PCL). With Computatrak, each forklift truck is fitted with a computer terminal which gives the driver instructions. These instructions come via a radio link from a supervisory computer which supervises pallet location, records stock input and output and controls all truck and operator movements.

The benefits are accurate stock rotation, improved utilisation of space and of forklift trucks, and the elimination of uncertainty about goods availability.

With similar goals in mind, West German truck manufacturer Jungheinrich, in collaboration with the UK storage consultants CAP Northern, will launch a system known as CAP-AGV later this year.

It is likely that the concept of the paperless warehouse may catch on where there is reluctance to automate fully. Industrialists in the UK, unlike those in other European countries, have fears about full automation. They are insecure about the future and so hesitant to invest massively in equipment which is dedicated to a particular application and which becomes obsolete when the application disappears. But it is hoped that this attitude will change.

Computers carry out day's decisions

THE SAFE and cost-effective provision of the right place and time of materials needed to manufacture line throughput pre-occupied most production engineers. Possibly as much as a third of the manufacturing costs of discrete products can be attributed to materials handling.

Manual, powered trucks (fork lift, pallet or tractor types) are widely used and are available from a large number of suppliers.

Another common sight in a high-volume plant are "conveyors" transport systems (conveyor belt or low-level chain, rack or roller systems).

A less common sight, however, particularly in the UK, is the automatic guided vehicle (AGV), and the robot.

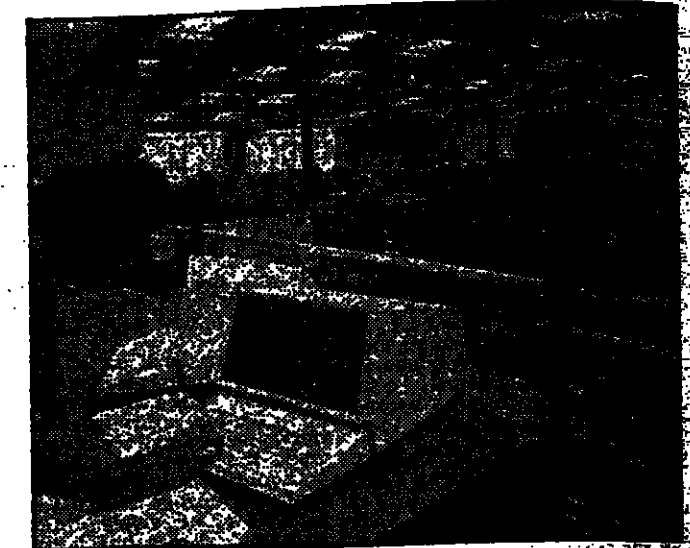
Increasingly, with increasing automation in the production processes themselves, the situation will change. The AGV will score where sufficient material or parts are transported and where production-integrated operations are necessary, such as automatic pallet loading/unloading at workstations. But for sporadic movements over widespread varying routes, the manned vehicle is likely to be more appropriate.

The various conveyor types have been used for many years but nowadays can be computer controlled, integrating them with other automation activity.

Clark's shoe-makers recently spent £3m at its Street, Somerset plant on a conveyor-based system the size of a football pitch, engineered by Rapistan Ltd. The system solved the problem of sorting many thousands of different pairs of shoes a day into packs for despatch to large numbers of customers.

A computer, knowing the orders for the day, allows bulk supplies of all the necessary shoes to be hand-picked and sent in a floor chain truck system (SI Handling, Swindon) from stores to sorting area, 100 boxes at a time.

Data General Boshes computers produce packing notes for each customer pack. The 100 boxes are manually loaded on to driven roller conveyors which feed a double conveyor run with 90-degree chutes and diverters down one side. The boxes have bar code labels identifying the contents, read by Acoustar laser scanners so that the boxes can be diverted



Using a Honeywell system to check parts availability in a factory store.

into the proper customer charges.

A particular value of roller conveyors is that buffer or accumulation sections become possible—a stop can be actuated and the rollers allowed to slip under the conveyed items.

Such arrangements are essential when delivery and disposal of units cannot be synchronised. Overhead conveyors with chain drive and suspended unit loads have the advantage of occupying no floor space, but roof and associated structures must be able to bear the load. They are popular in car body and television tube plants for example. Some systems allow differential conveyor speeds to be provided within the branches of a system.

Other overhead systems have a separate electric drive per load unit, with conductor rail.

Handling

GEOFFREY CHARLISH

They can be more cost effective where load frequencies are low and irregular.

A more flexible and less permanent approach is offered by the guided truck. There are various types, including tractor-pulled trains, used mainly where the number of destinations are few but material flow is high. Load/unload equipment is usually stationary (at loading point and destination).

Pallet trucks, on the other hand, can have their own lifting forks and can load/unload automatically and independently. They can be cost-effective where there is relatively low material flow to many destinations. Some trucks have four steered wheels and are highly manoeuvrable.

Other, special designs are rollers on the load surface to help with heavy loads. Some others have been specifically designed to work with precision equipment.

Principal suppliers of AGVs are Jungheinrich and Wagner in Germany and Digamma in Switzerland. In the UK, Babcock FATA recently entered the market.

Usually, low-frequency inductive systems are used to steer the vehicles and allow them to communicate with human or computer controllers. A wire buried centrally on the route radiates a field which is sensed by coils in the vehicle to keep it on course. Information about routing and loading/unloading is dealt with by other wire loops in the floor and ferrite serials in the trucks.

A recent development by Jungheinrich uses a radio communications system that will transmit data from a warehouse computer to 128 trucks and order pickers. Working at 450 MHz, the system is said to be relatively immune from industrial electromagnetic noise and screening by metal racking or machines.

Radio systems are an alternative to floor loop signalling and need little cabling. Men steer the trucks, but inductive steering could be used.

Robots, from companies like ASEA, Unimation, IBM, Cincinnati Milacron, Hitachi, Yaskawa, Kawasaki and many others are increasingly being used for unpleasant loading jobs—turning or machine tools for example.

In flexible assembly systems—a technology still in its infancy—robots pick and place parts and materials from incoming chutes, conveyors or pallets and after robot assembly, place assembled items on output conveyors.

SIEMENS

The resources and the commitment in industrial automation



The body assembly plant for the Jaguar XJ series uses a Siemens body-tracking system to follow the progress of each car on the assembly line. This is just one of a wide range of automated functions needed in computer integrated manufacturing.

Siemens specialises in engineered solutions for the identification, control and management of the production process. With Siemens, the combination of software, hardware, commissioning and support services originates from a single source.

The application of real-time control systems requires a thorough understanding of the manufacturing process and a complete knowledge of hardware and software, from the handling of cutting-tool data to the control of chemical reactions. Production control and monitoring provides the basis for constant appraisal and analysis of throughput and quality.

Siemens achievements go far beyond the realm of manufacturing control. In the UK we also have a deep and longstanding involvement in telecommunications, medical systems and electronic components.

As one of the world's largest electrical engineering companies, represented in 123 countries, we employ over 300,000 people. Of these more than 30,000 are engaged in research and development where we invest nearly £4 million a day to ensure Siemens key role in the technology of the future.

Siemens Limited, Siemens House, Eaton Bank, Congleton, Cheshire CW12 1PH
Tel: (02602) 78311
Telex: 8951091

Telecommunications



Medical systems



Electronic components



Siemens is where the future happens first

PROFILE: BROWN AND SHARPE

Different gauge of output and profits

MOST MACHINE tool companies have suffered in the past few years, but few have changed in shape as dramatically as Brown and Sharpe, formerly one of the leading US-based companies in this field.

As recently as 1980, machine tools accounted for nearly half the group's \$327.5m sales. By last year, they probably accounted for only a quarter of the total, and the group had stopped making machining centres and cutting tools because of excessive competition.

Moreover, the machine tool division had been largely responsible for the group's net losses of \$13.5m in 1982 and \$1m in 1983. Indeed, machine tool sales fell from \$78.7m in 1981 to \$39.7m in 1983 and pre-tax losses in those three years totalled \$33.4m.

In the meantime, however, B and S was building up its substantial and high technology measuring equipment business. It now accounts for half the group's sales and was the reason it returned to profit in the second quarter of last year for the first time in over two years.

Even during the 1982-83 recession, sales in the measuring equipment division declined only 12 per cent and pre-tax profits actually rose 16 per cent to \$35.2m between 1981 and 1983.

Digital readout

B and S has been in the measuring equipment business for a long time, making gauges, micrometers, rules, scales, caliper tools and surface plate tools. In the late 1960s, it developed its first three-axis precision measuring machine with digital readouts and soon realised that this would be a high growth market.

With the increasing emphasis on quality, manufacturers need machines that inspect their products fully and accurately. Under computer control, a measuring machine can note any number of points on the surface of an object and then check them against requirements.

Machines of this type are integral parts of unmanned flexible manufacturing systems, which is why other machine tool companies, such as Cross and Treco and Cincinnati Milacron, have made acquisitions in this area recently.

Electronics have also come to gauges and other types of measuring equipment. B and S has kept up with the new technology. It claims to be the only company in the sector that has a complete range of metrology equipment and systems.

In spite of the importance attached to the metrology business, B and S continues to make two types of machine tools—small, precision surface-grinding machines and single-spindle automatic turning machines. Demand for both remains depressed and the division is still in loss.

Similarly, a hydraulic equipment division, which accounts for the remaining 25 per cent of



turnover, continues to suffer from the slump in the mining industries. Much of its output of hydraulic valves, pumps and motors goes into mining equipment.

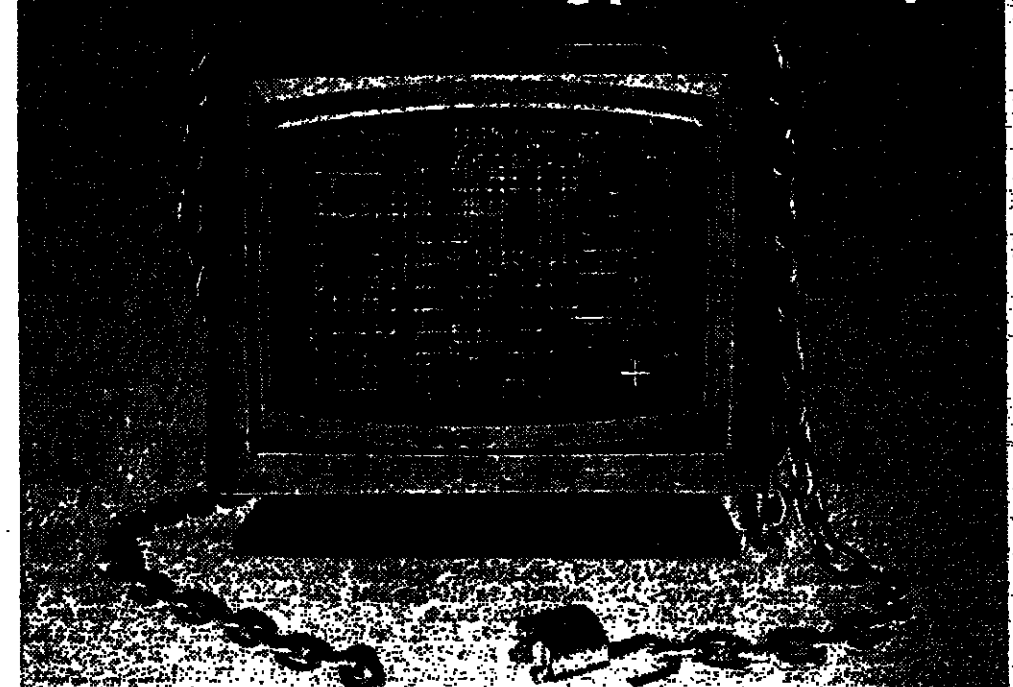
In addition to its operations in the US, B and S sells its products all over the world. Overseas sales accounted for 42 per cent of the total last year. The group has three plants in Britain. It makes turning machines at Derby, the Test computer-controlled gauging and measuring machines at Telford, and hydraulic equipment at Plymouth.

The restructuring of B and S has been a costly business. Shareholders' funds tumbled from \$59.7m at the end of 1980 to \$64m at the end of the third quarter of last year. However, the pain was eased by realising the proceeds of an extraordinarily successful British investment.

In 1980, the company became the US distributor of Teed Rembrandt probes for machine tools. It also decided at the time to take a 20 per cent stake in the small British company, which was one of the most successful new issues on the London Stock Exchange in 1983. Over the past two years, B and S sold the shares and realised a \$15m gain.

Ian Rodger

Unlock your full potential for IC/PCB engineering, design and manufacturing productivity



Backed by General Electric Company, USA, one of the world's leading industrial and technological companies, GE Calma can help revitalise your operations. From integrated circuits to 8191s, our customers have proved that our CAD/CAM tools create a new freedom and capability for engineering and design personnel to achieve their full potential. Projects will be implemented quicker, better and more cost-effectively with GE Calma high technology systems. Comprehensive after-sales support services over 300 staff throughout Europe. five training centres and nine hardware parts depots. If you're new to the world of CAE, CAM, CAD, don't worry. GE Calma pioneered these systems. We can help you unlock your full potential to improve productivity.

GENERAL ELECTRIC INDUSTRIAL AUTOMATION EUROPE
GE Calma, Beech House, 373-399 London Road, Camberley, Surrey GU15 3HE
Tel: 02763 66222
Telex: 558113 CALU G
U.S.A. ca|ma

General Electric Company, USA is not connected with the English company of a similar name.

Manufacturing Automation 5



An automatic system for testing integrated circuits before assembly

Machine vision ends tedium

Inspection
GEOFFREY CHARLISH

HAVING manufactured the product, a simple question arises: "Is it the right size and shape, and in an assembly, is everything where it should be?" The next query is "Does it perform as it should and how long is it likely to go on doing so?"

The second is a matter of testing, with almost as many answers as there are products. The first is concerned with dimensions, outlines, finishes and the presence or absence of parts.

Throughout measurement, test and inspection, electronics has been steadily replacing repetitive tedium which usually also requires close and unrelenting attention. "Right first time" answers are then more forthcoming, although some job de-skilling may result.

Take for example, the humble micrometer, in which the turn of a threaded and calibrated barrel have to be interpreted into part diameter by the user. Mercer, Moore and Wright and others offer micrometers in which the barrel motion is sensed by a transducer and the reading continuously shown on a small electronic display in the handle. It is almost impossible to make a mistake.

Recorded

For large components and assemblies, co-ordinate measuring machines (CMM), in which the positions of a probe tip in X, Y and Z co-ordinates are recorded, have been much enhanced by the microcomputer and electro-optics.

The computer can, for example, remember measurement sequences and move the probe accordingly, or it can look

at all the results for statistical trends.

Bendix, Brown and Sharpe, Carl Zeiss, C. E. Johansson, Vickers, Foxboro and LK Tool are prominent in CMMs.

View Engineering of California uses machine vision to programme the measurements. A TV camera takes a picture of the component and the operator moves a cross-hair over the screen to fix the desired measuring points. The computer remembers them and can make the CMM repeat them ad infinitum.

Machine vision will come into its own in the next year or two, since it is another tireless, accurate, remover of human tedium in inspection. Ever-cheaper electronic image storage and manipulation are making it more and more feasible, with low-end system prices below £20,000, although complexity of application can

move this towards £100,000.

In machine vision, a still of the object is captured from the TV signals and stored, after which it can be contrast-processed to enhance flaws, silhouettes, outlines, surface deficiencies and other features. Comparison with the picture content of a known good part under the same lighting conditions then allows a reject/accept decision to be taken.

Machine vision is still far from commonplace, but in the U.S., Object Recognition Systems has several systems installed. At General Motors, it is used to perform the ball-count in bearings. At an AT&T plastic card supplying company, light is projected into the card thickness to see what emerges from imperfections in the oxide stripe surface.

At Eastman Kodak, the technique is used to make sure flash cubes have been correctly

assembled into cameras.

In the UK, Ardel inspects rivets dimensionally at 600 a minute (T. A. Designs, Dorchester) while British Steel has an integrated Photomatrix system that monitors the dimensions of hot bar as it leaves the mill.

There are now more than 50 organisations either supplying equipment and systems or offering consultancy, according to Jack Hollingum's book, *Machine Vision* (IFS Publications, Bedford). Optics, with and without the laser are also being applied to metrology, enabling very accurate, contactless measurements to be made on large assemblies. Other instruments measure surface roughness.

Detect

For the electronics industry, two UK companies, Micro Measurements Engineering of Saffron Walden and Lloyd Doyle of Walton-on-Thames, have developed vision systems that will inspect loaded and "naked" printed circuit boards respectively in under a minute.

They detect missing, incorrect or reversed components in the first case, and faulty circuit tracks in the second. Negretti Automation (Aylesbury) offers the U.S. made Vanzetti Systems laser device for faulty solder joint detection.

In the area of testing as opposed to inspection, the electronics industry has led the way and a \$1bn world market in autotest equipment has resulted. This is because manual testing of electronic circuits, either on silicon chips or in the form of many chips on a printed circuit board, has been beyond the ability of humans for several years.

Boards are now tested on electronic machines in a matter of minutes—work which a small army of technicians working all day could not tackle.

Automatic testing is also becoming more common in areas like engine test and white goods production line testing.



Marconi automatic in-circuit test system used by GEC for checking printed circuit boards.

Sensing robots tackle welding

Fabrication
ANNA KOCHAN

WITHIN THE next couple of years the technology of fabrication by industry will be revolutionised. Automation too will be brought into an area of fabrication which has so far remained relatively untouched—welding.

More robots are used for welding than any other application but even so they have tackled only a fraction of the potential welding market because they are "blind".

A robot can only do exactly what it is programmed to and therefore relies on complete accuracy of location of the joint it is to weld. As well as accurate fixturing this requires that the parts to be welded must be accurately made.

This is quite a tall order, particularly in the automotive industry where the bulk of welding requirements involve pressings. Other errors can arise because even if the parts to be welded are perfectly aligned at the start of the welding operation, heat distortion during the process can put them out of line.

Sensors

Because of all these factors, only about 3 per cent of all art welding requirements can be tackled by robots without sensors. If the other 97 per cent are open to robots with sensors, then the market potential is enormous. And many companies are starting aggressive efforts to capture a slice of it.

A number of sensing techniques for locating the joint and tracking the seam have been developed and applications in fabrications of 4mm thickness upwards are beginning to use them. For finding the start

of the joint a tactile sensing system is used.

To take advantage of it the joint must be designed with a special feature such as a V groove, leg joint or fillet. The robot is programmed to go through a search sequence to find this feature by touching it with the weld wire. Once this is accomplished, the robot controller knows the exact position of the start weld and can initiate the cycle.

A second system which tracks the weld while the job is in progress and keeps the weld on the joint is known as through-the-arc. It involves the welding torch weaving across the joint as it welds, at each side of the joint taking samples of current and voltage. By comparing the samples from the two edges, the robot controller can correct the weld gun path as it proceeds.

These two sensing techniques have been available for three or four years but have been applied in production situations only recently. A year ago NEI Thompson, a Wolverhampton-based company in the Northern Engineering Industries group, acquired the licence to sell Japanese-designed Komatsu robots in Europe. The robots are equipped with both joint location and seam tracking sensing as just described.

NEI reports that it has already installed five systems in the UK and has orders for another seven, some of which will go overseas. And the company claims that it is currently inundated with inquiries.

So far, Komatsu robots have been used for mining and earthmoving equipment fabrication involving aluminium and stainless steel of thickness 4 mm upwards. In the future NEI is looking for jobs such as railway chassis fabrication which could involve welds 8-10mm long.

At the end of this month, Swedish-owned ESAB Automa-

tion will join NEI in the market. Its sensing system will be integrated with an ASEA robot. Even before the launch date, ESAB's subsidiary in Stevenage reports that it has sold two systems incorporating the package to UK one for fabrications up to 50 mm thick for mining machinery; the other for heavy pressed fabrications about 12 mm thick.

ESAB notes one disadvantage with the through-the-arc sensing technique. Because of the weaving motion, the weld takes three times as long as if it were straight, ESAB managing director Mark Aldridge says. To avoid this time penalty ESAB is now developing a real-time adaptive control system without weaving. It should be available by early 1986 but no details have yet been disclosed.

Also entering the field are two U.S. companies: General Electric and Automatrix, who are expected to launch sensing systems which will cater for both thin and thick materials in a single unit.

Laser welding is another technology which could transform fabrication methods in the future, the main advantage of the laser being that it eliminates thermal distortion and is easily automated. Lasers with powers up to 10 kw are now available from companies such as Ferranti, and these can weld steel up to 20 mm thick.

But fabrications of this size have not been tackled yet. It is still very early days — a recent survey reported that only seven lasers over 5 kw were sold worldwide last year. A few welding applications of low power (1-2 kw) lasers do exist, for example in welding gears onto drive shafts for motor vehicles and pipe welding for the nuclear industry and oil-related industries.

In the U.S., lasers are used for welding refrigerator doors, and in Italy there is an example in washing machine assembly. The white goods industry should see a growth in the use of the laser for welding as will the automotive where applications for suspension parts, petrol tank assembly and roof welding are being investigated.

Leading The Way In CAD/CAM Today

Micrograph's advanced CAD/CAM systems are the most powerful and flexible in the world. They are designed to meet the needs of the most demanding manufacturing environments. They are the only systems that can handle the most complex and demanding manufacturing tasks. They are the only systems that can handle the most complex and demanding manufacturing tasks.

Micrograph

See us on Stand 206
Computer Graphics User 85

Manufacturing Managers are losing out on Management Development

The need has never been greater for manufacturing industry to introduce new technology effectively. Managers must make changes in processes and systems, and cope with their impact on organization and people. We have recognised and met these needs.

Sundridge Park Management Centre has an established international reputation for the quality and effectiveness of its intensive residential courses. In particular the Operations/Works Management programme is specifically designed to provide manufacturing executives with the knowledge and confidence essential to tackle the challenges — and opportunities — of the new technologies. The course is for just 2 weeks and topics covered include:

- * Technology options — making the right choice
- * Human factors — the management of change
- * Control of Operations
- * Manufacturing strategy — including process, plant, organization and systems.

Places are still available on the following dates:

14-26 April (WM 2/85) 29 September — 11 October (WM 4/85)

9-21 June (WM 3/85) 17-29 November (WM 5/85)

NEW in 1985 are two courses of particular interest to manufacturing companies:

'Management of Innovation' — with PA Technology (3 days, 28-31 May)

'Micros in Manufacturing' — with Prof. Bill Berry, University of Iowa, (2 days, 30 June — 2 July)

Sundridge Park offers a range of other programmes suitable for managers in the manufacturing environment:

'Leadership in Management' (LM) — to enhance team leadership skills

'Development of Executives' (DE) — to improve skills in dealing with people at all levels

'Selling to Industry' (SI) — to develop selling skills

'Profit Management' (PM) — to improve decision making for profit

'Business Presentation Skills' (PS) — to raise personal confidence in presenting proposals more persuasively

All enquiries, to: Client Services, Sundridge Park Management Centre, Plaistow Lane, Bromley, Kent BR1 3TP. Telephone: 01-460 8585 ext 322.



Sundridge Park Management Centre

For further information please tick appropriate box and post to above address

Name

Position

Company

WM ☐ LM ☐ DE ☐ SI ☐ PM ☐ PS ☐

Please send details when available on:

Management of Innovation ☐ Micros in Manufacturing ☐

Manufacturing Automation 6

Complex task to replace human effort

IT IS likely that in the next decade, product assembly will get much attention from the automation experts.

The reason is not difficult to see: assembly is the most labour-intensive activity in factories where lower volume batch production takes place—and such production probably accounts for 75 per cent of discrete product manufacturing. Furthermore, the labour cost of manual assembly accounts for 20 to 25 per cent of the total labour cost for durable goods production.

Even where "hard" (that is, fixed, single product) automation reigns—in the large volume industries of motor cars and telephones for example—the scene is changing as markets demand more product variability with changes at shorter intervals.

Unwelcome as it may be to the conventional production director in Europe, the company that can maintain a flow of new, genuinely better and cheaper products—with no trade-off of quality to achieve lower prices—is the one that will win.

Unfortunately, assembly uses more sensing (sight, touch) and more mental/physical dexterity and judgment than most factory tasks. It therefore calls for aptitude and alertness but is at the same time repetitive and boring. Without full concentration by the operator, the product can suffer.

But the replacement of such human effort with assembly machines is expensive. Product managements are prone to simply equate automation cost with saved labour. In fact, flexible assembly systems (FAS), usually employing robotics and software control by computers, has other important advantages.

Such systems can be designed to assemble many variants of a particular kind of product—pumps, motors, electric panels, diesel engines—without extensive re-tooling and retraining and with minimum adjustment and down time at each change-over. At maximum sophistication using multi-axis robots, totally different products can be assembled.

This approach has been commonplace for a decade in the electronics industry, where machines assemble integrated circuit chips and other components on to high volume-printed circuit boards. They can

be re-programmed for a new product, but often can deal with only one component type so that several machines are needed. Gradually, robots are beginning to provide an answer for non-standard components.

In mechanical assembly there is much more variability. But the advantages of robotic assembly cannot be ignored in the West. In summary, they are better, more reliable products can be brought to market ordered by the customer and delivered more quickly, at more competitive prices, with much better response to variety and change.

What do such systems consist of? Modern computing and sensing can now be applied to nearly all new assembly systems, to a degree dependent on the flexibility needed. If one is assembling several million identical 13 amp plugs or carburettors, for example, the emphasis is on speed and the

Assembly

GEOFFREY CHARLISH

complexity resides mostly in production electromechanics.

With rather more computer power and software, and less mechanical hardware, systems developed by Bosch, IBM and Olivetti, for example, are aimed at making families of assemblies. These work in a relatively fixed structural framework, using pick and place robots designed specifically for assembly work.

Bosch, for example, offers a complete collection of parts to allow assembly systems of almost any size to be built. It offers basic aluminium extrusion bench structures, pallet systems, servodrives, linear robots, transfer stations, feeders, chutes, computers and controllers.

The concept is based on the fact that about 80 per cent of all products have an envelope less than 0.2 metre cube, weigh less than 5 kg and have even less than 20 components.

In Järfrå, Sweden, and elsewhere, IBM is using its new 7500 overhead gantry robot, which allows grippers to be positioned anywhere in a horizontal plane measuring some

6 ft x 4 ft, with vertical motion of 18 ins.

The arrangement is particularly suited to picking and placing parts into equipment front panels. The same robot is being used experimentally to make up wiring looms—a pressing problem in aerospace industries, where IBM and Boeing are co-operating. Westland in the UK has a similar research programme.

ASEA, the electrical giant, uses two robots (one ceiling mounted upside-down) to assemble the dozen or so parts of electrical contactors.

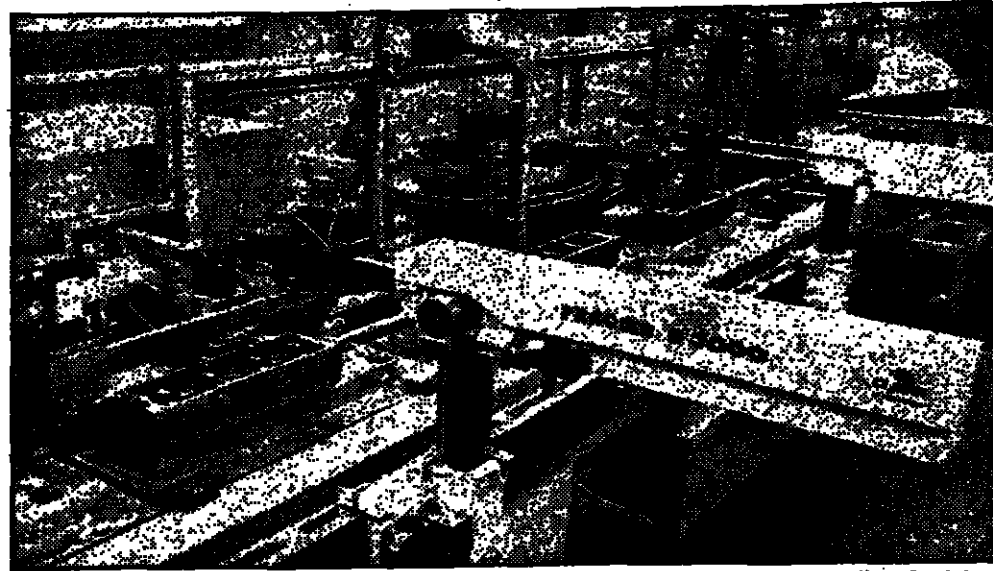
The Swedish Production Research Institute has two ASEA and two IBM robots in a system with 10 assembly stations at which pallets are stopped on the belt long enough for the robots to carry out the assembly tasks. Each robot serves two or three stations and can change its own tools from line-side magazines. Run by an IBM computer, the system is being taught to identify line trouble.

In Britain, Fairley Automation has installed a system at Perkins to assemble diesel engine cylinder heads using Pragma robots and an Allen Bradley controller. A similar system has been devised by Marwin Production Machines (Wolverhampton) for Austin Rover using Unimation robots. Fairley has also equipped Black and Decker in County Durham to assemble motor, gearbox and other items in various DIY power tools.

Flexible assembly is usually not something that can be bought off the shelf and often needs significant re-thinking about the design of the product itself.

Systems can take many forms but, like other experts, Dr David Nitzan of SRI International sees the problem basically in computing terms. There will always be a supervisory computer to co-ordinate workstations at which multiple microprocessors are responsible for sensing, control and command of items like robots and feeders.

There is certainly no shortage of consultants. Among them are Cambridge Consultants, Cranfield Institute of Technology, Computer Application Consultants, Babson, Ingersoll Engineers, PA Technology, PERA, and SRI International.



Assembly of diesel cylinder heads at Perkins. The correct valves, valve springs and collets are fitted automatically into several different types of head whatever their order.

PROFILE: INGERSOLL ENGINEERS

BY IAN RODGER

Shop floor consultants

INGERSOLL ENGINEERS look like a consulting group that was set up in anticipation of the automated manufacturing technology (AMT) revolution.

Lots of major consulting organisations are getting interested in AMT, but most of them are approaching it from backgrounds in office management. By contrast, Ingersoll comes at it straight from the shop floor.

Ingersoll Engineers was set up in 1962 as a sales support organisation for Ingersoll Milling Machine, the specialised machine tool business of Ingersoll International of the U.S.

"We were getting a lot of proposals to which we didn't have answers, but we didn't want to turn the money," Mr Edson Gaylord, group chairman, says.

But gradually, the engineering organisation grew and became independent of the machine tool business, offering advice to a wide variety of companies, primarily on manufacturing problems. Today, it has 220 professional engineers operating from offices in the U.S., Britain, France and West Germany, and very little of its business is tied in with the sales of Ingersoll machines.

Ironically, though, Mr Gaylord suspects that the trend to AMT will strengthen the ties between the two again. Ingersoll

Milling Machine is finding that more and more potential customers who want to buy manufacturing systems are not actually ready and should, with the guidance of consultants, analyse their needs first.

The British office, based at Rugby, has 98 professionals operating in three areas: management consultancy, engineering and project management.

Mr Peter Dempsey, chairman of the British office, says his

INGERSOLL ENGINEERS

goal is to help companies link technology with business success. "The most under-exploited area of most companies is manufacturing. We can almost guarantee to get 10 to 15 per cent out of a company's costs if they do what we say," Mr Dempsey says.

On average, the British office handles 250 projects a year and 70 per cent of its business comes from former customers. Its client list includes most of the leading names in heavy manufacturing, such as British Aerospace, Cincinnati Milacron, Cummins Engine, GKN, GEC, Hawker Siddeley, Lucas, Massey-Ferguson, Northern Engineering, Perkins Engines,

Rolls-Royce and Vickers. But it also gets about a third of its income from overseas contracts.

One of its main areas of project management expertise is in plant consolidations. Partly because of the severity of the decline in Britain's manufacturing industry in recent years, many companies have found they can no longer operate satisfactorily from their large and often rambling premises.

One of Ingersoll's main marketing points is its extensive knowledge of factories around the world. It claims to be able to tell a client with considerable precision just how his manufacturing costs and technology stand up against those of foreign competitors.

Mr Dempsey and his colleagues are also active lobbyists for the interests of manufacturing industry, and have been involved in the development of government programmes for encouraging the adoption of AMT.

Ingersoll says that British manufacturers, on the whole, are eager to adopt new manufacturing technologies, but many have not invested for a long time and are taken back at first by both the costs and the rate at which production technologies are changing. Thus, it tends to take a long time to get major projects approved.

PROFILE: COMAU

BY IAN RODGER

Focus on U.S.

COMAU MAY NOT be too well known outside the manufacturing automation field, but one of its products, Robogate, has become famous round the world.

Robogate is the advanced robot system for spot welding car body panels together, and it features regularly on television news programmes when the fortunes of the car industry are in the spotlight.

That sort of publicity cannot be all bad, but Comau officials would argue that in the '70s it is the quality of the product that counts.

In the past year, Comau, a subsidiary of the Fiat group, has passed an important test in that respect. The company had begun focusing its attention on the U.S. market in 1979 and, in the spring of 1983, it went into a joint marketing venture with one of its U.S. rivals, Bendix. The U.S. company also bought a 30 per cent stake in Comau for roughly \$30m.

However, within a year, Bendix was acquired by Allied, a U.S. conglomerate, its factory automation business had been sold to Crown and Trecker, another U.S. rival, and the Comau marketing venture was dissolved.

Comau then decided to set up its own U.S. marketing operation and, since last April, it has taken \$150m-worth of orders for its factory equipment and systems from the U.S. automotive industry.

"Our strongest commitment now is in the U.S.," Mr Paolo Cantarella, Comau's managing director, says, and he has backed it up by having 100 people based in the Detroit office. "You need to stay in very close touch with the customer in this business, because it tends to change specifications every day."

The company's roots and most of the rest of its 3,200 employees, however, remain very firmly in Italy. Comau was formed in 1977 following the acquisition by Fiat of three well-established Italian machine tool and materials handling companies to add to its own company in the field, MST.

The company specialises in most areas of advanced manufacturing—equipment—machining, materials handling, assembly and control and has a wide base of customers, with the accent on large systems. Its average contract is

between \$10m and \$20m, and it now has 12 months of orders in hand.

About half of the revenue (\$220m) "earned" last year came from sales of machines and mechanical assembly systems, the remainder from welding, final assembly and materials handling systems. Roughly half of total sales are made in foreign markets, with a third last year being made within the Fiat group.

Sales to Fiat companies vary considerably, however, being as low as 7 per cent in Japan. Approximately two-thirds of sales are made to the automotive industry, and the company does not seem to have any trouble selling to Fiat's motor industry competitors.



Comau is eager and equipped to supply large advanced manufacturing systems to other industries but finds the opportunities fairly limited.

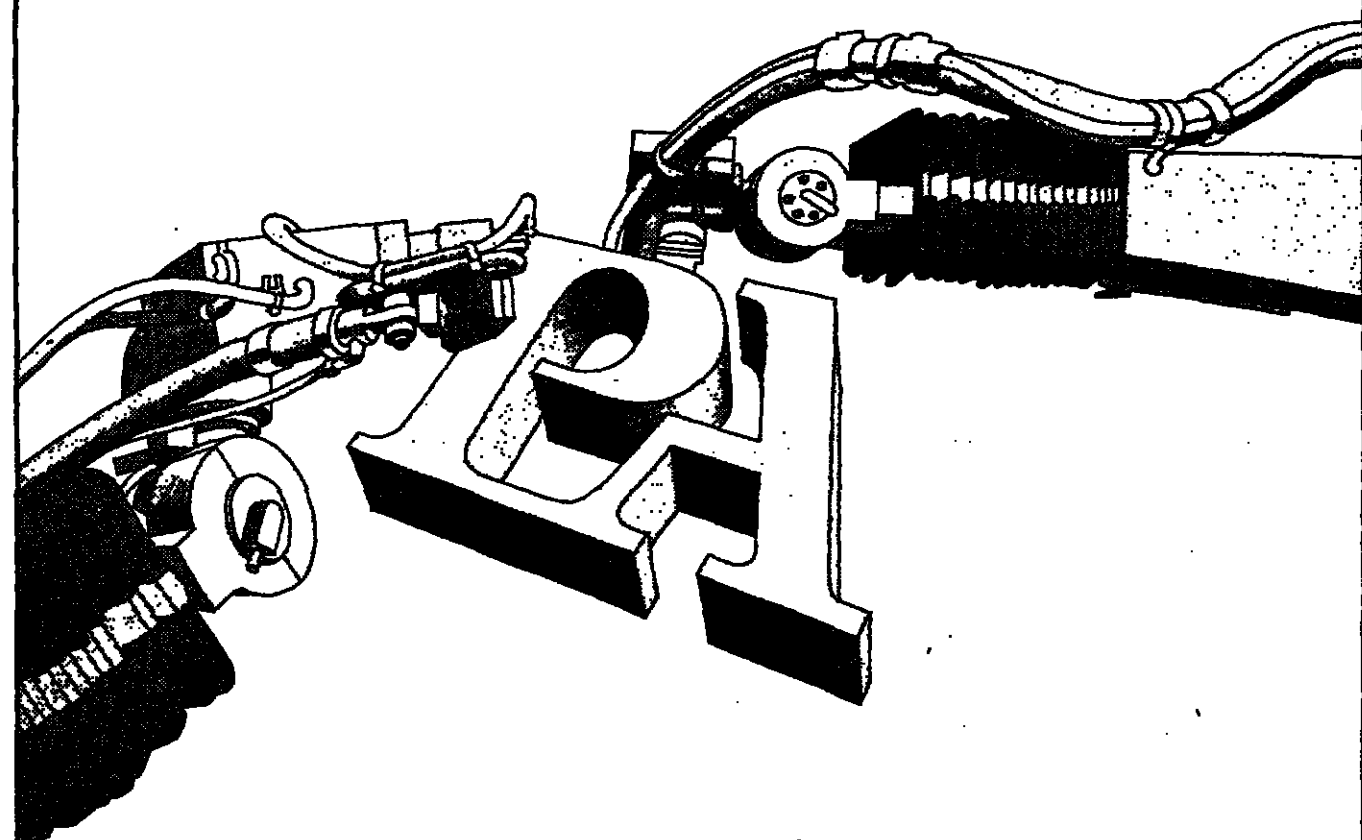
"It is difficult to find people with needs for a high degree of automation," Mr Cantarella says. "The group's main flexible manufacturing capability so far have included a \$7m system to machine compressor parts for Borg-Warner in the U.S., one for machine parts for Caterpillar Tractor at Glasgow and another for Alsthom Atlantique in France."

In the materials handling field, it has moved outside the engineering industries, supplying a large automated warehouse to Benetton, the Italian garments group.

Comau's main products, apart from the Robogate, include transfer lines, vertical lathes, automated guided vehicles, robots and control systems. Mr Cantarella is satisfied with the product line, except in the robot area.

The group is one of the top four suppliers of robots for welding, but its Smart robot is useful only for that and other heavy tasks. There are increasing opportunities for more smaller robots to do more delicate tasks and it is likely that Comau will see apply its existing control and sensing knowhow to smaller robots.

Technology with brains.



To get a really successful result from your investment in manufacturing automation, you need two things.

The best technology in the world: best practice from Britain, the US, Europe, Japan; or advanced engineering concepts created specifically to meet your requirements. From product design to delivery.

And the best brains, to integrate hardware, software, systems and engineering into your business strategy, to meet your productivity and profitability goals.

PA has both. Only PA has the

engineering experts, the technological innovators, the commercial tacticians and the corporate strategists.

One service, one supplier, one name for manufacturing automation: PA.

To find out more, telephone Nick Mitchell on 01-589 7050.

Or ask your secretary to call us for our literature on integrated manufacture and automation technology.

PA Management Consultants, Bowater House East, 68 Knightsbridge, London SW1X



PA consulting group

PA consulting group—Management Consulting—Technology—Computers and Telecommunications—Personnel Services



FINANCIAL TIMES CONFERENCES

The Third Automated Manufacturing Conference - Challenge for Management

Hotel Inter-Continental, London
20 & 21 February 1985

This conference is designed for directors and managers of manufacturing organisations who are having to examine proposals for automation. It is divided into sessions dealing with particular sectors of manufacturing automation, such as design, machining, materials handling, fabrication, etc. Each session will begin with an address by an expert on the state of the art in that sector, to be followed by two case studies presented by users.

Programme

Automating Product Design

AN OVERVIEW OF COMPUTER AIDED DESIGN (CAD) TECHNOLOGY
What can it deliver? How advanced and cost effective are the systems for testing parts designed on CAD? How efficient are the routines for converting CAD designs directly into machined parts?

Mr Mike Sutton
Industrial Applications Marketing Group Manager
IBM United Kingdom Limited
Case Studies: Austin Rover Group
Plessey Radar

Automated Machining

Cells, or islands of automation, are now fairly common and a few more elaborate flexible manufacturing systems (FMS) are operating. Functions such as tool setting and parts inspection are being successfully integrated. Control is increasingly flexible. Improved sensing technologies are being introduced and new cutting techniques.

Mr Fred C Wilson
President
Special Machine Group
The Ingersoll Milling Machine Company,
Rockford, Illinois.
Case Studies: Rolls Royce
Brown Boveri

Automated Materials Handling

STORAGE AND RETRIEVAL SYSTEMS FOR RAW MATERIALS
Work-in-progress and finished products are becoming more flexible, using automated guided vehicles and overall computer control.

Mr Sergio Sereni
Vice General Director
FATA Engineering Group SpA
Case Study: Perkins Engines Group

Fabrication and Assembly

The use of robots in spot welding is firmly established, but is developing more slowly for seam welding and for pick and place functions, notably because of the complexity of control requirements. Advances in sensing technologies are vital to automating fabrication and assembly.

Mr George T Rehfeldt
Group Vice-President
Industrial Specialty Products
Cincinnati Milacron, Cincinnati
Case Studies: Deere & Company
Fiat Auto SpA

Closing Address

THE POTENTIAL OF COMPUTER INTEGRATED MANUFACTURING (CIM) - HOW SHOULD MANAGERS BE PREPARING FOR IT?

Mr C R Whitney
Chairman of the Board and Chief Executive Officer
Allen-Bradley Company, Milwaukee

The Third Automated Manufacturing Conference - Challenges for Management

To: Financial Times, Conference Organisation,
Minster House, Arthur Street, London EC4R 3JL.
Tel: 01-621 1365 Telex: 27347 FTCONF G

Please send me further details of 'The Third Automated Manufacturing Conference'

Name _____
Company _____
Position _____
Address _____
Tel: _____

SECTION II - INTERNATIONAL COMPANIES FINANCIAL TIMES

Tuesday February 5 1985

FEB
MANUFACTURERS & SUPPLIERS
OF BUILDING & CHEMICAL PRODUCTS
FOR THE CONSTRUCTION INDUSTRY.
FEB INTERNATIONAL PLC
Albany House, Swinton Hall Road, Swinton,
Manchester M27 1DT. Tel: 061 794 7411

The Interleasing Experience...
... means Total Fleet Cost Control
Interleasing
Car, Van & Truck Control Ltd & Fleet Management
Tel: 021 432 4222
Tel: 07821 825181
London
Tel: 01-404 0909
Tel: 061-231 4547

National Intergroup restructuring begins to show benefits

BY PAUL TAYLOR IN NEW YORK

NATIONAL INTERGROUP, (NII) the U.S. steel and financial services group which recently sold 50 per cent of its steel interest to Nippon Kokan of Japan and is now planning to merge with Bergen Brunswick, a fast-expanding West Coast Drugs and Consumer electronics distributor, yesterday reported its first full-year net profits since 1981. The Pittsburgh-based group, whose earnings reflect the impact of a patchwork of special items associated with the group's radical restructuring, had net earnings of \$12.8m, or 44 cents a share, in the fourth quarter compared with a \$30m, or \$3.06, loss in the 1983 period. Sales plunged to \$178.8m from \$784.3m, reflecting the impact of the sale of the equity stake to Nippon Kokan and the resulting accounting change in the way National's remaining steel interests are handled to an equity basis. The latest quarter includes gains of \$7.3m, or 36 cents a share. The fourth-quarter profit helped lift full-year net earnings to \$32.6m, or \$1.33, compared with a \$154.3m, or \$3.33, loss in 1983. Net sales for the full year fell by 21.5 per cent to \$2,290m from \$2,920m. The 1984 and 1983 results include a series of extraordinary items. Full-year results include the \$7.3m fourth-quarter gains, together with a non-recurring charge of \$18.9m associated with the steel division equity stake sale to Nippon Kokan. The 1983 fourth-quarter and full-year results include a \$53.5m non-recurring charge for the liquidation of National Pipe and Tube, and the write-off of certain other steel-related assets. In addition, the 1983 full-year results included a \$100m non-recurring charge related to the sale of the group's Weirton Steel division to employees and a \$22.1m gain on a debt for equity swap. Mr Howard Love, chairman and chief executive, said: "National Intergroup's return to profitability reflects the benefits of our ongoing corporate-wide cost reduction programmes and the continuing restructuring of the company to grow in our most profitable segments. "All of NII's businesses earned an operating profit for the full year. Earnings by our metals businesses in the fourth quarter were affected by weak prices, which are continuing in the early part of 1985. However, our plans and strategies now in place are expected to result in a further improvement in NII's earnings in 1985." NII currently faces a challenge from Leucadia National, a New York-based holding company which owns over a 7 per cent stake in National Intergroup, and other major shareholders, to its plans for a merger with Bergen Brunswick. Shareholders are due to vote on the planned merger on March 7. Mr Love said yesterday: "We strongly believe the merger will provide important benefits to our stockholders, including a major thrust into the rapidly-growing distribution services business. We are confident the combined company will emerge in a strong and competitive financial condition having substantially greater assets and cash flow and a greater degree of diversification."

WEST GERMAN DEAL MAY POSE THREAT TO SUPPLIES OF POWER UNITS

Klöckner to buy diesel engine rival

BY PETER BRUCE IN BONN

KLÖCKNER - Humboldt - Deutz (KHD), one of West Germany's major diesel engine and tractor manufacturers, is to buy control of a major diesel engine competitor, Motorwerke Mannheim (MWM) from its troubled parent, Munich-based Knorr Bremse.

The deal is likely to lead to a flurry of activity among other diesel engine producers in Europe as MWM itself is a major supplier of engines to two of KHD's competitors in the tractor market, Renault in France and Fendt in West Germany.

Knorr-Bremse, privately owned and Europe's largest manufacturer of locomotive brake systems, is understood to have won assurances

from KHD that engine supplies to existing MWM customers like Renault and Fendt will not be tampered with. Fendt, at least, has suggested it may have to find other engine sources in the longer term, however.

Announcing the deal, Knorr Bremse did not say how much KHD was paying, but control of the engine division is likely to have gone cheaply. MWM, the oldest engine producer in the country, has not been profitable for at least four years, largely because of its continuing exposure in the market for large ship diesel engines.

However, the MWM line will provide Deutz with a line of water-

cooled diesels in the medium sizes from 50 to 250 horsepower. Deutz makes only air-cooled engines in this range, and future market opportunities for them may not be as strong as for water-cooled engines.

Turnover at MWM fell from DM 543m in 1983 to DM 430m last year, a third of which is accounted for by sales to agricultural machinery producers. Both MWM and the Krupp diesel subsidiary, and Cummins of the U.S. had expressed an interest in MWM before yesterday's announcement. Cummins, it is understood, was not keen to maintain the existing works.

The sale of MWM, which also has manufacturing facilities in Brazil,

will take a heavy burden off Knorr Bremse, which is itself losing money and which has been stricken by a bitter two-year long dispute between the uncle and nephew who each own 48 per cent of the group's stock.

Knorr Bremse's turnover of DM 1.3bn (\$410m) in 1983 was nearly 10 per cent down on the previous year. MWM accounts for more than half Knorr Bremse's sales - and quite possibly a large proportion of its losses - and until a few months ago Herr Joachim Vielmetter stubbornly refused to sell it or at least relinquish control of it.

Herr Vielmetter's nephew, Herr Jens von Bandemer, appeared final-

Goldsmith to retain stake in Colgate

By Terry Dodsworth in New York

SIR JAMES Goldsmith, the UK financier, is aiming to maintain his investment in Colgate-Palmolive despite a recent court ruling which suggests that the U.S. household products company will be able to keep a controversial new takeover defence scheme.

Sir James acquired a small stake in Colgate-Palmolive last year and subsequently applied to the authorities for permission to increase his holding to more than 10 per cent. Colgate shares began to mount after the announcement of this investment, but had speculation quieted again when Colgate adopted an anti-takeover scheme that would make the company considerably more expensive to acquire.

Since then, Wall Street has been waiting for the outcome of a court battle in Delaware which is testing the validity of the new takeover defence. The Delaware court last week decided in favour of a similar scheme, devised by Wachter Lipton, the New York law firm, in a case brought against Household International, the consumer finance company.

Sir James, however, still believes there is a good chance that the Household International defence will be overturned in an appeal which has been lodged with the Delaware Supreme Court. For the moment, he says, he is sticking with his strategy at Colgate and has not revised his stake.

Sources close to Sir James point out that the Delaware Supreme Court has taken a strong line on directors' responsibility to shareholders in a recent case involving the sale of Trans Union Corporation to Marmon. Directors were censured for the disposal under the "business judgment" rule - the notion that officers of a company must exercise sound judgment on behalf of shareholders. This rule has formed a central part of the case against Household International.

CIT-Alcatel puts off planned NY listing

BY DAVID MARSH IN PARIS

CIT-ALCATEL, the French state telecommunications group, has postponed earlier plans to make a share flotation on the New York stock market.

The company is still examining the question of a listing on the New York over-the-counter market, but has now put back to around 1986-87 the possible date of introduction. When it announced the plans last summer - which would have amounted to the first non-French share listing for a large state-run French group - company officials said the step could be taken this year.

Senior CIT-Alcatel executives say the company - which is 57 per cent

owned by the nationalised Compagnie Générale d'Electricité conglomerate - wants to ensure that any proposed New York listing would be a success.

The scaling down of the plans is partly linked to uncertainties over the company's future financial performance. It has suffered from stagnating foreign and domestic orders for public telephone equipment, although a FF 500m (\$51.8m) order signed with China last month brought an end to an exceptionally lean streak on export markets. The CGE group has built up U.S. activities through a policy of acquisitions and expansion over the last two years.

Wells Fargo to sell mortgage banking unit

By Paul Taylor in New York

WELLS FARGO, the U.S. West Coast banking group, said yesterday that it had agreed to sell its residential mortgage banking subsidiary, Wells Fargo Mortgage, to a limited partnership for \$108m. The banking group said the deal would result in a first-quarter pre-tax gain of \$50m.

Under the terms of the deal, which is subject to regulatory approval but is expected to be completed during the first quarter, Wells Fargo Mortgage would be acquired by a partnership formed by Integrated Resources, an investment group which specialises in organising and managing investment programmes for individual and institutional investors. The San Francisco banking group had recently announced that it was considering the sale of the unit.

Wells Fargo Mortgage services a substantial portion of the bank's residential mortgages as well as mortgages held by other investors. The mortgage subsidiary, headquartered in Santa Rosa, California, has assets of about \$125m.

Greyhound ahead but unsatisfied

BY WILLIAM HALL IN NEW YORK

GREYHOUND, the U.S. long-distance bus company which endured a long strike in 1983 to push through hefty wage cuts, trebled its fourth-quarter net income to \$36.6m but nevertheless described its 1984 results as unsatisfactory.

Net income from continuing operations, which had been depressed by the 1983 strike, rose from \$70.3m to \$125m. Group revenues for 1984 rose marginally to \$2.2bn.

Mr John Teets, chairman and chief executive, said that "even with the beneficial impact in 1984 of the nearly 15 per cent rollback in salaries and wages negotiated with the union, Greyhound Lines' results were wholly unsatisfactory."

Greyhound expected, however, "much improved results" for the bus line in 1985, as a result of previously announced steps to expand its passenger base while cutting its asset base.

Turnround for U.S. food group

BY OUR FINANCIAL STAFF

CPC, the large U.S. food group, made a strong recovery in the final quarter of 1984, with a turnaround from a net loss of \$881,000, or \$0.1 per share, to a \$55.1m profit, or \$1.14, that took the full-year total to \$193.4m, or \$3.98, from \$136.2m, or \$2.81m.

Fourth-quarter profits a year earlier were hit by an after-tax charge of \$55m, or \$1.14 a share, arising from an earlier than planned

phasing out of two plants which are being rebuilt.

Sales for the year reached \$4,370m, up from \$4,010m, with \$1,070m in the latest quarter.

CPC processes and markets consumer foods and is a producer of food ingredients and industrial products derived from the corn wet milling process.

Its products include Mazola corn oil and margarine.

Westpac to lead Bond oil deal

By Our Financial Staff

BOND Corporation, the Western Australian bear, property and resources group, has given a mandate to Westpac, Australia's biggest bank, to arrange a \$500m (\$400m) financing package to cover its share of the Harriet oilfield.

The field, in shallow water 10 miles from Barrow Island off the coast of Western Australia, is expected to cost about \$750m up to the production stage. Bond owns 62.65 per cent of the Harriet permit as a result of its purchase last autumn of the U.S. Occidental group's interest.

Hyundai to start Canada plant

BY BERNARD SIMON IN TORONTO

THE SOUTH Korean group Hyundai is to build its first North American car parts factory near Toronto.

The investment appears to be directed at forestalling the imposition of import quotas on Hyundai's cars, which have been in strong demand in Canada since being sold there for the first time a year ago. Pony sales reached 25,100 units in 1984 and captured 11 per cent of the market for imported passenger vehicles.

The Hyundai plant, involving an investment of \$225m (\$18.8m) and employing up to 300 people, will initially produce electrical compo-

nents such as alternators, starter motors and heater motors. Construction of the plant is due to begin later this year.

The company said its long-term plans include setting up a research and development department in Canada to produce engine components. A Hyundai official said that the company, unlike many other foreign investors in Canada, will receive no financial assistance from the Canadian Government.

Mr Sinclair Stevens, Canada's Industry Minister, said yesterday that the Hyundai investment is "the exact type of commitment from foreign manufacturers that Canada requires."

Japanese car imports to Canada, in contrast with shipments from South Korea, are limited by annual renewable quotas. The Canadian authorities have linked negotiations on the quotas to investment by Japanese manufacturers in Canada.

Honda announced last year that it is to build a C\$100m assembly plant near Toronto, and a group of leading Japanese parts manufacturers has formed a new company to study opportunities for local investments.

Crédit National

ECU 50,000,000
10% per cent. Guaranteed Notes due 1994

Unconditionally guaranteed by the
Republic of France

Crédit Lyonnais

Kreditbank International Group

Banque Nationale de Paris

Amro International Limited Banque Bruxelles Lambert S.A. Banque Indosuez
Banque Paribas Capital Markets Berliner Handels- und Frankfurter Bank Hambros Bank Limited
Istituto Bancario San Paolo di Torino Lloyds Bank International Limited
LTCB International Limited Mitsubishi Finance International Limited
Société Générale de Banque S.A.

Algemene Bank Nederland N.V. Al Saudi Banque Banca Commerciale Italiana Bank Ippa Banque du Benelux S.A.
Banque Française du Commerce Extérieur Banque Générale de Luxembourg S.A. Banque Internationale à Luxembourg S.A.
Banque Privée de Gestion Financière "B.P.G.F." Baring Brothers & Co. Limited Caisse Centrale des Banques Populaires
Caisse des Dépôts et Consignations Caisse d'Epargne de l'Etat du Grand-Duché de Luxembourg (Banque de l'Etat)
CERA-Centrale Raiffeisenbank AG Belgium Chase Manhattan Capital Markets Group Chase Manhattan Limited CLN Oyens & Van Eeghen N.V.
Compagnie Monégasque de Banque Copenaghen Handelsbank A/S Crédit Agricole Crédit Commercial de France
Crédit Communal de Belgique S.A./Cemeentekrediet van België N.V. Crédit Europeen S.A. Luxembourg Crédit Général S.A. de Banque
Crédit Industriel et Commercial de Paris Crédit du Nord Crédit Suisse First Boston Limited Creditanstalt-Bankverein
Credito Italiano Den Danske Bank International S.A. S.A. Dewfin N.V. Dominion Securities Pitfield Bank Limited
Dresdner Bank Aktiengesellschaft Gefina International Ltd. Genossenschaftliche Zentralbank AG Vienna
Niederlandsche Middenstandsbank nv Kleinwort, Benson Limited Merrill Lynch Capital Markets
Norddeutsche Landesbank Girozentrale Pictet & Cie Postbank AG Privatbanken A/S Rabobank Nederland
Société Générale Société Générale Alsacienne de Banque Luxembourg Sparekassen SDS Svenska Handelsbanken Group
The Taiyoo Kōbe Bank (Luxembourg) S.A. Union Bank of Switzerland (Securities) Limited Vereins- und Westbank Aktiengesellschaft
S.G. Warburg & Co. Ltd. Westdeutsche Landesbank Girozentrale Wood Gundy Inc. Yasuda Trust Europe Limited

December 28, 1984



African Development Bank

ECU 75,000,000 Bonds

Comprising

ECU 40,000,000 10% per cent. Bonds due 1989

ECU 35,000,000 10% per cent. Bonds due 1991

Crédit Lyonnais

Société Générale de Banque S.A.

Algemene Bank Nederland N.V. AL-Mal Group Amro International Limited
Bank of Tokyo International Limited Banque Bruxelles Lambert S.A. Banque Générale de Luxembourg S.A.
Banque Internationale de Gestion et de Trésorerie - BIGT Banque Internationale à Luxembourg S.A.
Banque Paribas Capital Markets Credit Suisse First Boston Limited Daiwa Europe Limited
Deutsche Bank Aktiengesellschaft Girozentrale und Bank der österreichischen Sparkassen Aktiengesellschaft
Istituto Bancario San Paolo di Torino Kreditbank International Group
Nippon European Bank S.A. - LTCB Group

Abu Dhabi Investment Company Banca del Gottardo Banca Nazionale del Lavoro Banco di Roma BankAmerica Capital Markets Group
Bank Cuzco/Willis Kurz, Bungeiser (Overseas) Limited Bank Ippa Bank Mees & Hope NV Bankers Trust International Limited Banque du Benelux S.A.
Banque Française du Commerce Extérieur Banque Indosuez Banque Internationale pour l'Afrique Occidentale (B.I.A.O.) Banque Nationale de Paris
Banque Worms Baring Brothers & Co. Limited Bayensche Verensbank Aktiengesellschaft Berliner Handels- und Frankfurter Bank
Caisse Centrale des Banques Populaires Caisse des Dépôts et Consignations Caisse d'Epargne de l'Etat du Grand-Duché de Luxembourg (Banque de l'Etat)
CERA-Centrale Raiffeisenbank AG Belgium Chase Manhattan Capital Markets Group Chase Manhattan Limited CLN Oyens & Van Eeghen N.V.
Citicorp Capital Markets Group CLN Oyens & Van Eeghen N.V. Copenaghen Handelsbank A/S County Bank Limited Credit Agricole
Crédit Commercial de France Crédit Commercial de Belgique S.A./Cemeentekrediet van België N.V. Crédit Général S.A. de Banque
Crédit Industriel et Commercial de Paris Crédit du Nord Creditanstalt-Bankverein Credito Italiano Dai-ichi Kangyo International Limited
Den Danske Bank af 1871 Aktieselskab Den norske Creditbank (Luxembourg) S.A. DG Bank - Deutsche Genossenschaftsbank
Dominion Securities Pitfield Limited Dresdner Bank Aktiengesellschaft Enskilda Securities Skandinaviska Enskilda Bank First Interstate Bank
Hill Samuel & Co. Limited I.B.J. International Limited Kansai International Bank S.A. KfW - Kreditanstalt für Wirtschaftliche Entwicklung
Kuwait International Investment Co. S.A. Lehman Brothers International Shearson Lehman/American Express Inc. Lloyds Bank Limited
McLeod Young Weir International Limited Merrill Lynch Capital Markets Mitsubishi Finance International Limited Mitsui Finance Europe Limited
Morgan Grenfell & Co. Limited Morgan Guaranty Ltd Morgan Stanley International Nederlandse Middenstandsbank nv Nederlandse Credietbank nv
The Nishio Securities Co. (Europe) Ltd. Nippon Credit International (HK) Ltd. Nomura International Limited Norddeutsche Landesbank Girozentrale
Nuovo Banco Ambrosiano Orion Royal Bank Limited Österreichische Länderbank Pierson, Heidring & Pierson N.V. PK (Christiana Bank) (UK) Ltd.
Postbank AG Privatbanken A/S Rabobank Nederland Salomon Brothers International Limited Sparbanken S.A.
Société Générale Société Générale Alsacienne de Banque Luxembourg Sparekassen SDS Sumitomo Trust International Limited
Svenska Handelsbanken Group Swiss Bank Corporation International Limited Tokai International Limited Union Bank of Switzerland (Securities) Limited
S.G. Warburg & Co. Ltd. Westdeutsche Landesbank Girozentrale Wood Gundy Inc. Yamaichi International (Europe) Limited

December 12, 1984

We think the U.S. market is about to make a move.



At Bache Securities, we see the pieces to fuel a major U.S. market rally falling into place. U.S. inflation is down, interest rates are falling and we see solid earnings growth rather than a recession in 1985.

The time to take advantage of the U.S. market is now, but not without our 1985 Investment Outlook. It offers all our thinking, plus the 45 stocks we recommend for the coming year and many promising bond opportunities.

Make sure the U.S. market doesn't take off without you.

Call or send in the coupon to the Bache Securities office nearest you.

London: 5 Burlington Gardens, England W1K 1LE, Tel: 439-4191 Telex: 263779
New York: 100 Gold Street, Special and International Accounts, U.S.A. 10292 Tel: 791-4425
Hong Kong: Shell House, 24-28 Queens Road Central, B.C.C., Tel: 852-5-229061
Telex: FX 62201
Singapore: Wing On Life Building, 150 Cecil St., Republic of Singapore, 0106 Tel: 224-6122
Zurich: Wasserwerkstrasse 10, Switzerland 8035, Tel: 361-4422 Telex: 81336

Please send me a free copy of your "1985 Investment Outlook"

Name _____
Address _____
Telephone _____

Bache Securities

International offices: Amsterdam, Athens, Basel, Brussels, Buenos Aires, Chiasso, Cologne, Düsseldorf, Frankfurt, Geneva, Hamburg, Hong Kong, London, Lugano, Luxembourg, Madrid, Monte Carlo, Munich, New York, Paris, Rotterdam, St. Croix, St. Thomas, San Juan, Singapore, Stuttgart, Tokyo and Zurich.

This advertisement complies with the requirements of the Council of The Stock Exchange



SVENSKA HANDELSBANKEN

(Incorporated in the Kingdom of Sweden with limited liability)

U.S. \$100,000,000
12½ per cent. Notes 1989
with 100,000 Warrants to subscribe for
U.S. \$100,000,000
12½ per cent. Notes 1989
(Both subordinated as to payment of principal and interest)

SVENSKA HANDELSBANKEN GROUP CITICORP INTERNATIONAL BANK LIMITED

The issue price of the Notes is 100 per cent. plus accrued interest (if any) and for the Warrants U.S. \$30 for each Warrant. The 12½ per cent. Notes will bear interest at 12½ per cent. per annum, from 20th February 1985 payable in arrears on 20th February in each year, commencing on 20th February 1986. The 12½ per cent. Notes will bear interest at 12½ per cent. per annum from the 20th February preceding the date on which the relevant Warrants are exercised, unless such date is 20th February, payable in arrears on 20th February in each year. The 12½ per cent. Notes, Warrants and 12½ per cent. Notes have been admitted to the Official List by the Council of The Stock Exchange, subject only to their issue.

Full particulars of the 12½ per cent. Notes, Warrants, 12½ per cent. Notes and Svenska Handelsbanken are available in the External Statistical Service and may be obtained during usual business hours on any weekday (Saturdays excepted) during the period of two business days following the date hereof from the Company Announcements Office of The Stock Exchange and during the period of fourteen days from the date hereof from:

Svenska Handelsbanken
Kungsträdgårdsgatan 2
S-103 28 Stockholm

Cazenove & Co.
12 Tokenhouse Yard
London EC2R 7AN

Bankers Trust Company
Dashwood House
69 Old Broad Street
London EC2P 2EE

5th February 1985

This announcement appears as a matter of record only. These Notes have not been registered under the United States Securities Act of 1933 and may not be offered or sold in the United States of America, its territories or possessions or to nationals or residents thereof.



MARYLAND NATIONAL CORPORATION

U.S. \$65,000,000

Euronote Issuance Facility

Arranged by:

Goldman Sachs Limited

Managers

Kansallis-Osake-Pankki

National Australia Bank Limited

State Bank of New South Wales

Westpac Banking Corporation

Tender Panel Members

Banque Paribas Capital Markets

Kansallis-Osake-Pankki

Midland Bank plc

Nomura International Limited

J. Henry Schroder Wagg & Co. Limited

Sumitomo Finance International

Goldman Sachs International Corp.

Merrill Lynch Capital Markets

National Australia Bank Limited

Orion Royal Bank Limited

State Bank of New South Wales

Westpac Banking Corporation

Banks', Tender Panel and Issuing & Paying Agent
Midland Bank plc



January 28, 1985

INTERNATIONAL COMPANIES and FINANCE

Nestle bids \$58m for Australian confectioner

By Michael Thompson-Neel

NESTLE, the Swiss foods group, is offering about \$57.5m (\$58m) for the 55 per cent of Lifesavers (Australasia) it does not already own.

The move could precipitate a rationalisation of the Australian confectionery market. The offer is \$53.30 cash per share and \$3.30 per convertible net, or two shares and \$1.30 cash.

Nestle has told the Foreign Investment Review Board in Canberra that it would subsequently dilute its interests in Lifesavers to 49 per cent to comply with local investment rules.

The AMP Society, Australia's largest non-government investor, owns 10.1 per cent of Lifesavers and favours the offer. Mr Jack Chia, a Melbourne businessman, owns 6.5 per cent and is thought to be similarly inclined.

Lifesavers (Australasia) made a net profit of only \$53.4m in the year to last July, though trading is thought to have improved considerably in the last six months. Its shares rose 40 cents to \$4.35 in Sydney yesterday.

The deal is the latest in a series of acquisitions by Nestle which culminated late last year in an agreement to purchase Carnation, the U.S. foods group, for around \$38m.

The Lifesavers purchase is being made through Raleigh Nutritional Products, a company formed by Nestle in 1983 to develop involvement in the Pacific area. It is intended to seek an Australian stock market listing for Raleigh in about three years.

Nestle acquired the 15 per cent stake in Lifesavers when selling Australian-based chocolate and sweet plant to the Australian company in 1981. At the time, Lifesavers was also granted a licence to produce Nestle products.

Lifesavers' sales for last year totalled \$128m. Nestle's chocolate and confectionery sales in 1984 totalled \$2.3bn (\$2.82m), while the Swiss group's total Australian sales were in excess of \$50m.

Italian deal by Flaekt

By Our Financial Staff

FLAECT, the Swedish air processing and environmental control group, has bought two Italian companies in an effort to strengthen its position in the Italian market.

The Swedish company, which has had an Italian subsidiary since 1957, said the purchases of Climatherm, a refrigeration equipment manufacturer, and C.A.R., which makes air handling units and air conditioning accessories, are intended to further develop the export of Italian-made Flaect products in the Mediterranean area and the Middle East.

Flaect did not reveal a purchase price. Both acquired companies are in the Milan area.

LTV reports sharply higher loss

BY ANDREW BAXTER IN NEW YORK

LTV, the third biggest U.S. steel producer, yesterday reported sharply higher fourth-quarter and full-year losses which it blamed on surging steel imports and deteriorating prices.

The Dallas-based group which merged with Republic Steel last June, posted a \$246.7m net loss from continuing operations in the fourth quarter, compared with profits of \$4.6m a year earlier.

The latest figures include a \$74m pre-tax charge in the steel segment and \$58m in the energy business. The charges relate to rationalisation of facilities and related costs, liquidation of stocks and staff reductions. In the 1983 period a \$2.7m

credit lifted final net earnings to \$7.5m, or \$0.4 a share.

For the year, LTV posted a net loss of \$378.2m compared with \$180.7m in 1983. The 1983 figure includes income of \$34.2m from continuing operations and an extraordinary gain of \$23.4m.

Sales rose from \$1.5bn to \$2bn in the quarter, and from \$4.8bn to \$7bn in the year. The results include those of Republic Steel from July 1.

LTV's figures follow the trend set earlier by Bethlehem Steel, which reported sharply higher fourth-quarter losses, and by U.S. Steel, which returned to operating losses in its steel business.

Mr Raymond Hay, LTV's chair-

man and chief executive, said 1984 was an abnormally difficult year for the U.S. steel industry and LTV. Imports surged in the second half, causing prices to deteriorate and operating rates to decline steadily.

However, LTV's near-term liquidity position would benefit from an expected improvement in steel prices, lower capital spending, further stock reductions and continued disposal of non-strategic assets acquired with Republic.

In contrast, Weirton Steel, the West Virginia steel concern which National Intergrupp sold to employees in 1983, reported net profits of \$80.6m on sales of \$1.1bn last year. Profit figures for 1983 were not given, but sales were \$629m.

Steel shipments rose from 1.4m tons in 1983 to 2.1m. The company said it was profitable in every quarter of 1984, operating at reasonably high business levels, especially in the second quarter. In line with the industry trend, however, sales and shipments fell by 10.3 per cent and 9.5 per cent in the fourth quarter, compared with the third.

Mr Robert Loughhead, president and chief executive officer, said: "It is a safe assumption that, for the time being, profit margins will continue under great pressure amid withering price competition."

The company's response would be to continue to focus on better quality, efficiency and cost control, he said.

Saudis buy stake in Texas refiner

BY WILLIAM HALL IN NEW YORK

TAG GROUP, the Luxembourg arm of an investment company owned by Saudi Arabia's wealthy Ojeh family, has come to the rescue of Valero Energy, a Texas company which has been hard-hit by the slump in the U.S. refining industry.

Valero announced yesterday that TAG Group had agreed to invest \$15m in Valero and another \$50m if it could arrange a feedstock contract for Valero's new \$60m refinery in Corpus Christi which is losing substantial amounts of money.

In common with many refineries in the U.S., Valero's Corpus Christi plant has been making big losses since its feedstock costs are too high to enable it to earn profitable margins on its petroleum product output.

Intradel purchase lifts Douwe Egberts' profit

BY LAURA RAUN IN AMSTERDAM

DOUWE EGBERTS' acquisition of Intradel, a toiletries company, helped to lift the Dutch coffee purveyor's profits by 38 per cent to F1 61.5m (\$17.1m) in the first half of fiscal 1984-85 from F1 44.5m a year earlier.

Without the consolidation of Intradel, which is based in Amsterdam, Douwe Egberts' earnings would have risen 13 per cent in the July to December period of 1984. Foreign operations, which rose to

57 per cent of turnover from 52 per cent, and lower costs also boosted net income. Sales rose by 28 per cent to F1 2.09bn from F1 1.63bn, or 13 per cent discounting Intradel.

Douwe Egberts is 93 per cent owned by Consolidated Foods, the U.S. food processor, but is operated as a distinctly Dutch company catering to local tastes. The Utrecht-based company sells premium priced coffee, tea and tobacco products.

Multimedia executives propose \$1bn buy-out

BY OUR NEW YORK STAFF

MULTIMEDIA, the U.S. media group, has received a \$1bn management buy-out proposal. The group, which publishes 43 newspapers and operates TV, radio and cable TV franchises, says that a management group headed by Mr Wilson C. Wear, the chairman, was offering \$36 cash and \$25 principal of subordinated discount debentures for each of Multimedia's 16.7m shares.

The senior management team proposing the buy-out has been joined by members of the Peace, Jolley, Sisk and Furnham families which founded Multimedia in 1968 through the merger of several regional newspaper and broadcasting companies. It went public in 1971.

In the first nine months of 1984 Multimedia earned \$24.1m. Its biggest business division is broadcasting, which had revenues of \$97.3m in the nine months. Newspaper revenues totalled \$74.5m and cable TV revenues totalled \$45.6m.

If the buy-out proposal is successful, the senior management and members of the founding families will hold around 40 per cent of the outstanding shares, with management options to acquire additional shares.

Maltese bank profits dip

BY GODFREY GRIMA IN VALLETTA

MID-MED BANK and Bank of Valletta, Malta's two leading government-run commercial banks, report increased deposits and advances for 1984 but say they have experienced a poor year for profits.

Mid-Med's accounts show deposits to have grown to ME219.8m (\$440m) from ME180m in 1983. Advances climbed to ME69.8m from ME63.7m.

The increases in deposits by both Mid-Med and Bank of Valletta follow the takeover of accounts previously held by the government savings bank.

Mid-Med's growth in advances mirrors the bank's continued penetration in financing industrial and tourist schemes rising on the island. Since the bank was acquired by the state from Barclays of the UK there has been more participation in local development projects.

Bank of Valletta deposits increased to ME115.9m from ME85.9m and advances rose to a total of ME55.9m. Taxed profits, however, dipped to ME1.2m from ME1.3m.

The key factor behind the erosion in profits is the banks' excess liquidity which had to be deposited with the central bank virtually at a loss.

Aker achieves sharp growth

BY FAY GJETER IN OSLO

Norway's Aker offshore fabricating group lifted 1984 profits, before extraordinary items, to about Nkr 90m (\$9.8m) from Nkr 37.3m in 1983. This was well above the Nkr 75m which the group forecast earlier in

connection with a new share issue following restructuring. However, no dividend is proposed for 1984. Meanwhile a three-for-one scrip issue will put share capital at Nkr 111.8m, up from Nkr 27.9m.

PLOVDIV INTERNATIONAL FAIR

Two significant international events will attract businessmen and manufacturers from all over the world in the Bulgarian town of Plovdiv in 1985.

6th-12th May 1985

SPRING INTERNATIONAL FAIR OF CONSUMER GOODS AND FOODSTUFFS

—Exhibition of various high-quality products of the light and food industries, utility and recreation articles.

30th Sept.-7th Oct. 1985

AUTUMN INTERNATIONAL TECHNICAL FAIR

—Innovations in the field of mechanical engineering, electronics and electrical engineering, technical and technological equipment, metallurgy, power engineering, chemical industry, building and architecture will show the achievements of world-renowned manufacturers.

Engineering companies will be able to show and compare their best attainments.

The Bulgarian Scientific and Technical Unions, production companies and foreign firms will sponsor symposia, research and technical conferences and seminars for exchange of research and technical information and experience.

The Plovdiv Fairs offer excellent conditions for active and fruitful business.

For more detailed information please contact:
Administration of the International Plovdiv Fair
Plovdiv, 37 G. Dimitrov Blvd, BULGARIA
Tel: 5-31-90, 5-31-45, 5-31-46
Cable: Pansira Plovdiv
Telex: 044432 Parter BG
The Bulgarian Chamber of Commerce and Industry
Sofia, 11-a Stribolitski Blvd, BULGARIA
Tel: 47-26-31
Cable: Torpalata Sofia
Telex: 22374

U.S. \$50,000,000

Hapoalim International N.V.

Guaranteed Floating Rate Notes 1986

For the six months February 6th, 1985 to August 6th, 1985 the Notes will carry an interest rate of 9½ per annum Coupon Value US\$480.78 Listed on The Stock Exchange, London

CRÉDIT D'ÉQUIPEMENT

DES PETITES ET MOYENNES ENTREPRISES.

US\$100,000,000

Guaranteed Floating Rate Notes Due 1993

For the six months 1st February, 1985 to 1st August, 1985 the Notes will carry an interest rate of 9½ per annum and Coupon Amount of US\$452.50 payable on 1st August, 1985.

By: Bankers Trust Company, London
Fiscal Agent

IDB INTERNATIONAL N.V.

U.S. \$50,000,000

Guaranteed Floating Rate Notes 1986

Unconditionally and irrevocably guaranteed as to payment of principal and interest by

ISRAEL DISCOUNT BANK LIMITED

For the three months 31st January, 1985 to 30th April, 1985 the Notes will carry an interest rate of 10½ per annum. The relevant Interest Payment Date will be 30th April, 1985

Bankers Trust Company, London
Fiscal Agent

INTERNATIONAL COMPANIES and FINANCE

Allianz flexes muscles for its next advance

By Jonathan Carr, recently in Munich

THE EXPANDING ALLIANZ EMPIRE

Major direct interests in industrial companies	Issued capital (DM m)	Allianz percentage interest	Activity
Bayer AG	163.0	31.8	Adhesive tape, cosmetics
Lehmeyer	80.0	26.1	Energy supply
Monachia Grundstucks	7.3	44.7	Real property
Schless	18.0	27.1	Machine tools
Wustenrot-Bank für Wohnungswirtschaft	50.0	25.0	Banking
Major interests in consortium companies	Issued capital (DM m)	Allianz percentage interest	Companies in which consortium company has an interest of 25 per cent or more
ABM Beteiligungsgesellschaft	86.6	25.5	Messerschmitt-Bölkow-Blöhm
Allgemeine Verwaltungsgesellschaft für Industrie- und Handelsbetriebe	193.5	25.0	Metalgesellschaft
Almeco Vermögensverwaltungsgesellschaft	39.0	50.0*	Heidelberger Druckmaschinen; Fechtel
ARB Beteiligungsgesellschaft	145.0	31.0	ANT Nachrichtentechnik
Regina Verwaltungsgesellschaft	37.5	50.0*	Guthehoffnungshütte Aktienverein
Thyssen Vermögensverwaltungsgesellschaft	111.6	19.3	Thyssen
	13.8	55.0	Hapag-Lloyd

*Jointly with Allianz Lebensversicherung. The consortium company has a 40 per cent holding in Franconer Vermögensverwaltungsgesellschaft, which itself has a 25 per cent holding in Hochtief. The consortium company has an interest of more than 50 per cent in ANT Nachrichtentechnik, which itself has a holding of more than 25 per cent in ANT Nachrichtentechnik.

FORTUNATELY for Allianz, West Germany's biggest insurer, Dr Wolfgang Schieren will not take no for an answer. About 30 years ago he tried for a job at Allianz's Munich headquarters—but was turned down. He promptly applied again at the company office in Cologne and this time it was "by the back door" as it were.

Today as chief executive and as persistent as ever, the 57-year-old Dr Schieren is thrusting Allianz into a new era of its nearly century-old history. Within the last few months he has sealed a deal to take control of Italy's second biggest insurance concern for more than DM 1bn; he is raising around DM 800m through Allianz's biggest ever capital increase; and, above all, he is restructuring his group to win more scope to make acquisitions and to diversify into non-insurance sectors.

That implies that Allianz will soon be still better placed to snap up another foreign insurance company (probably in the U.S.)—and it means that German banks must be on the watch for a possible new rival.

Small wonder that Dr Schieren has been given nicknames in the press: "Superman" and "Almighty" and that his expanding empire is watched with mingled awe and concern at home and abroad. At least part of the unease is due to a feeling (somewhat exaggerated but none the less widespread) that Allianz's true power lies, like the bulk of an iceberg, well beyond public gaze.

The Allianz insurance figures are striking enough. The group has about 14 per cent of the domestic life and at least 18 per cent of the non-life market. Total premium income last year was up 6 per cent to more than DM 16bn of which some DM 3bn came from abroad (the rest from the U.S.). That DM 3bn figure means that since 1980 Allianz has more than doubled its foreign business, which hardly existed when Dr Schieren became chief executive in 1971.

Moreover, the group has total investments worth around DM 60bn (which, for comparison's sake, is more than 3 per cent of West Germany's Gross National Product). Much of that is in fixed interest securities, mortgages and real estate; but a lot too is in stakes (direct and indirect) in leading German enterprises such as MBB, Gutehoffnungshütte and Thyssen. Here details are not always easy to come by. For example,

you will search in vain for a record of the Allianz group shareholding in one of the country's biggest banks, the Bayerische Hypothek- und Wechselbank (it is understood to be somewhat below 25 per cent). Again, it is plain from the published accounts that Allianz has a stake through various holding companies in Daimler-Benz AG. But it takes some digging to discover that the share is a surprisingly modest (albeit valuable) 1.56 per cent.

There is a further key point—the close (some say "Siamese twin-like") relationship between Allianz and Münchener Rückversicherung (Munich Re), the world's largest reinsurer. Allianz Versicherungs AG, the parent company, holds a 25 per cent stake in Munich Re which in turn has 25 per cent of Allianz. The two also have interlocking holdings in other concerns, both in the insurance world and beyond. They even have their headquarters within a stone's throw of one another on Munich's Königsplatz.

Take all that, add it to a somewhat opaque picture of the Allianz empire—and throw in a "Superman"—and it is easy to create a vision of almost unfettered, even sinister, financial power.

It is an enticing picture—but a flawed one. For one thing, while the ties between the two giants are close (Munich Re actually founded Allianz in 1890), that does not mean they

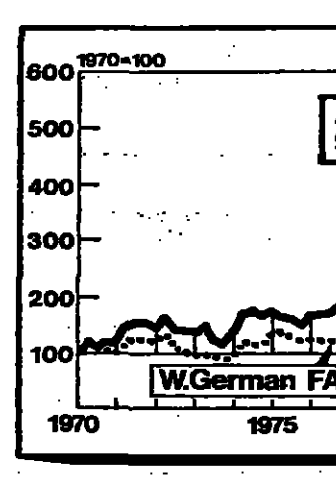
always have a common strategy and interests. For example, Munich Re kept well away from Allianz's (ultimately abortive) bid for Britain's Eagle Star concern in 1983. It evidently felt its broader reinsurance custom would not be served by joining the struggle, although its financial muscle would have come in mighty handy for Allianz. It is also worth noting that Allianz has been led since 1969 by Herr Horst Jannott, an executive as tough and talented as Dr Schieren, though less in the public eye. There is no question of either boss telling the other what to do.

For another thing, while the DM 60bn worth of investments in undeniably impressive, Allianz is far from free to do what it likes with the money. Use of almost all the funds is regulated by law and closely monitored by the federal Insurance Supervisory Office in Berlin. Like other German insurers, Allianz must stick to strict rules on safety, yield, marketability and spread in investing underwriting provisions.

The rules do not apply to investment of shareholders' funds but naturally far lesser sums are involved (albeit in Allianz's case more than DM 2bn). Above all, companies are barred from borrowing to make acquisitions, however advantageous they may judge credit-financed deals to be.

It was well-nigh inevitable that Dr Schieren would seek to free Allianz from some of these bonds sooner or later (however much he stresses his respect for the tough laws which have headed off major mishaps on the post-war German insurance market).

After all, this is a man who has not only doggedly built up Allianz's presence abroad—Britain in 1974, the U.S. in 1976, Austria in 1977, Australia in 1979 and so on. He has also laid a firm basis for this growth with stringent cost-cutting and earnings improvement at home. It was the Eagle Star battle which finally convinced Schieren of the need for a change in group...



give Allianz more room for manoeuvre. In a recent interview in his Munich office Dr Schieren stressed that in any case he believed the bidding against BAT Industries drove the Eagle Star price to too high a level. Allianz was thus not unhappy to retire with a clear profit of DM 550m—even though its main aim of establishing itself really firmly in Britain had to be shelved (but not abandoned). Throughout the struggle Allianz had been uncomfortably aware of the legal restrictions it faced in financing so big a takeover, and of the Berlin supervisors hovering in the background.

As a result Dr Schieren and his former finance director, Dr Marcus Biedrich—now head of the Bosch group—drew up a plan for a new, more flexible Allianz. The details are complex but the basis is simple. The present parent company will be transformed into a holding company (probably called Allianz AG) and all the direct insurance activities, along with the corresponding assets and liabilities, will be turned over to a wholly-owned subsidiary. The holding would ensure the subsidiary had adequate equity capital and the two would be linked by a profits sharing and domination accord.

Under this construction, the holding would not be subject to the full scrutiny of federal supervisors and, in addition, more than DM 2bn at its disposal in shareholder's funds—would be free to borrow on the capital market.

What can be expected from this "new Allianz"? It, as seems virtually certain, the scheme is formally adopted (and, as intended, backdated to take effect from January 1)? There

has been much public speculation that Allianz will diversify into non-insurance "financial services" and Dr Schieren does not discourage that view. Why should he? Allianz (along with other insurers) is highly irritated by the decision of several West German banks, among them the Deutsche, the biggest, to start offering savings schemes coupled with life insurance.

Allianz feels this action involves trespassing on its "patch" and might indeed have to be countered by a move into financial territory close to the banks' own. But Dr Schieren stressed he had no concrete plans at present and felt the more existence of a more flexible Allianz could cause the banks to think twice about pushing more deeply into the insurance preserve.

The key point is that Allianz operating through the new holding will in future be much better able to act and react in making foreign acquisitions. Even before its restructuring plan was made public last month, Allianz announced that it was taking control of the Italian Riunione Adriatica di Sicurtà (RAS), which had premium income in 1983 of around DM 4bn. Roughly half that income comes from outside Italy implying that, while there may be some overlap, Allianz has been able considerably to broaden its foreign activities at a single blow.

Beyond the RAS deal, Dr Schieren leaves no doubt that his gaze is still firmly turned towards the U.S. Allianz has long been seeking to complete both its life insurance activities there (Fidelity Union of Dallas and North American Life and Casualty of Minneapolis) and its modest non-life operation centred on Los Angeles with a new acquisition.

As for Britain, Dr Schieren makes clear he is not contenting himself with more "dawn raids" and battles of the Eagle Star style. "I would prefer it if there were an English company with a shareholder—say, with around 25 per cent and another shareholder 'Y' with about 15 per cent. I would offer a reasonable price to get some 40 per cent—and I would be satisfied with that holding," Dr Schieren said modestly.

Any names? The Allianz chief smiles and is ready to wait. After all, he usually seems to have got most of what he was after—in the end.

Scott Paper gains 51% over year

BY WILLIAM HALL IN NEW YORK

SCOTT PAPER, the world's biggest tissue-maker, increased its fourth-quarter net income by 41 per cent to \$40.9m, continuing a strong recovery which began two years ago.

The group's full-year net income rose 31 per cent to \$157m or \$3.83 per share, on the back of a marginal increase in sales to \$2.8bn.

The company says its domestic sanitary paper products turned in record sales and earnings, as did its packaged products division. The S. D. Warren coated-paper division also reported record earnings, almost tripling 1983 levels. Mr Philip Lippincott, Scott's chairman, says 1984

was a "year of significant progress". The group's share of the earnings of its international affiliates fell from \$23.5m to \$14.5m. This was partly due to the cost of new product introductions and plant modernisations in the UK, the launch of a new Malaysian plant, and conditions in Mexico.

Looking to 1985, Mr Lippincott says he is concerned about the competitiveness of the tissue market in the U.S. and uncertainties in some international markets, but he is optimistic that the year will see a continued improvement in Scott's performance.

N. AMERICAN QUARTERLY RESULTS

AMERICAN PRESIDENT	Fourth quarter 1984	1983	Year 1984	1983
Revenue	240.2m	202.7m	958.2m	822.7m
Net profit	21.7m	15.1m	85.0m	62.0m
Net per share	1.70	1.31	6.80	5.00

OVERSEAS-ALMOS	Fourth quarter 1984	1983	Year 1984	1983
Revenue	50.2m	75.5m	200.0m	240.0m
Net profit	10.5m	25.4m	40.0m	100.0m
Net per share	0.87	2.28	3.20	8.00

ONG TRUST INDUSTRIES	Fourth quarter 1984	1983	Year 1984	1983
Revenue	202.7m	178.5m	822.7m	710.0m
Net profit	10.5m	10.0m	40.0m	40.0m
Net per share	0.87	0.82	3.20	3.20

PROVIDENT LIFE & ACCIDENT	Fourth quarter 1984	1983	Year 1984	1983
Revenue	77.1m	69.5m	308.4m	278.0m
Net profit	6.7m	4.2m	26.0m	16.0m
Net per share	1.40	1.07	5.17	2.90

COOPER INDUSTRIES	Fourth quarter 1984	1983	Year 1984	1983
Revenue	58.1m	49.0m	232.4m	196.0m
Net profit	32.7m	26.0m	129.0m	104.0m
Net per share	0.86	0.81	3.20	2.60

TOUCHSTONE	Fourth quarter 1984	1983	Year 1984	1983
Revenue	2.0m	1.5m	8.0m	6.0m
Net profit	10.5m	11.7m	40.0m	46.0m
Net per share	2.15	2.35	8.00	8.00

WYETH	Fourth quarter 1984	1983	Year 1984	1983
Revenue	74.5m	82.2m	298.0m	328.0m
Net profit	32.2m	1.7m	129.0m	26.0m
Net per share	0.87	0.04	3.20	0.60

MANITOWOC PAPER	Fourth quarter 1984	1983	Year 1984	1983
Revenue	60.0m	53.0m	240.0m	212.0m
Net profit	16.2m	13.0m	65.0m	52.0m
Net per share	1.02	0.82	4.00	3.20

TECHNOLOGY

GALLIUM ARSENIDE DEVELOPMENTS

STC's merchant chips

BY GEOFFREY CHARLISH

FOLLOWING A development programme extending back to 1975, STC Components Group has started sample-level production of gallium arsenide (GaAs) integrated circuits at the Paignton, Devon, plant, where £5m has been spent over the last 12 months.

The initial device range, which will go into full production this year, will be mainly low power digital circuits. There will be six standard products by the end of this year. Available now for example, is a 128k static random access memory (RAM), but is understood that the high speed computer market will not be addressed for two to three years.

Although STC will be supplying products in-house, the main objective is to address what has become known as the "merchant" market—the "non-in-house market"—in the UK, France, Germany, the U.S. and Australia.

Most of the products are aimed at the military where the high speed and low power consumption of the technology are important. The situation is the inverse of that in Japan where most of the semiconductor companies are offering or developing GaAs devices for applications like fast computers and direct broadcast satellite receivers, and where the military market is minimal.

By the end of 1985 custom-

GaAs PROPERTIES SUPERIOR TO SILICON

Analogue Signal Processing	Higher Frequency
	Lower Noise
Digital Switching	Higher Speed
	Lower Power Consumption
Electro-Optical Functions	More Versatile Optical Properties
	Can Integrate Optical-Analogue-Digital
General Advantages	More Radiation Tolerant
	Higher Temperature Operation
	Semi-Insulating vs Semi-Conducting Substrate

design products will be offered and during 1986 a "foundry" operation will start in which STC will make other company's GaAs products to order.

The present size of the GaAs market is put by STC at £200m world wide. This is under 10 per cent of the total semiconductor market and the percentage may not grow much in the next ten years according to Dr D. O. Spiller, project manager for GaAs at STC. But the enormous growth of the "chip" market as a whole will mean that by the mid-90s, the GaAs segment could be worth £5000m.

In the UK, both Plessey and GEC (Marconi Electronic Devices) have similar programmes, but have concentrated on analogue rather than

digital devices. STC sees its main competition at the moment to be Harris and Gigabit Logic in the U.S. The main technical feature of GaAs is that electrons can move about in it some five times more freely than in silicon. In these circuits there is always a trade-off between speed of operation and power dissipation—a high "speed power product" is highly desirable, and GaAs is superior in this respect to silicon. The practical outcome is that higher data rates become possible.

But for the future, an important property is that laser devices and circuit elements can be manufactured on the same chip, simplifying tomorrow's opto-electronics.

Television

Annotation on screen

A SCREEN annotating system introduced by Rees Instruments of Woking allows closed circuit television operators and sensor-derived and subsequent video recording.

Known as the DDUE, the system can accept 15 incoming signals in analogue or digital form, passing the information to an analogue to digital converter if necessary and then to a microprocessor with built-in alpha-numeric keyboard (for operator entry and control). The micro processes the data into a displayable form, allowing it to be added to the picture on the screen.

Four types of "page" can be selected for the display. One is a full screen display with title, date, time and 23 lines of text. Another shows 36 separate items of data relating to camera operations and sensor readings while a third allows this data to be reduced in size and moved to a convenient spot on the frame area. A fourth page type allows one operator to record notes for use by the next.

The system has battery back-up for the memory and is expected to find favour for many industrial CCTV inspection applications. More on 04502 62221.

Software

Sales forecasts

A SALES forecasting programme has been introduced by Management Decision Systems. This system allows planners, marketing and production managers to carry out comprehensive sales forecasting in order to co-ordinate production and distribution.

The program runs on powerful IBM mainframe systems and Prime 32 bit superminicomputers. Called Easycast, the software can interface to many company departments including marketing, financial planning, inventory and materials management. More information from the company in Slough on 0753 822456.

The luck and wisdom of video investment

EVER SINCE the invention of photography in 1839, followed by cinematography, television and finally video, individuals and companies have been failing over each other trying to make fortunes out of new media. The trail of lost fortunes has been considerable, especially with the more recent electronic media. CBS, ICI and later CIBA-GEIGY lost heavily on the EVR cassette system—a playback-only forerunner of the videocassette.

Telefunken and Decca met disaster with their Teldec (later Ted) video disc system. And since then the toll has included Philips—first in and first out with its own videocassette recorder; Avco Embassy likewise with a rival VCR system in 1973; more recently RCA with the finally failed CED video disc player; and some would add the Nimble 3D camera, which just survives.

Investors are now very cautious, even nervous. Fools did at times rush in where angels feared to tread and some of the failures were certainly predicted by media specialists who reckoned they knew better. But some of the same experts also dismissed the VCR: the 35mm still camera, even cinematography.

The seasoned media investor has now seen enough company prospectuses to know the form—a dash of hi tech, statistics on growth in some of these markets, and forecasts. How indeed can one really forecast future markets, especially for absolutely new and innovative products, remains a mystery but Macintosh International has just published a major study of the 8mm camcorder (The Strategic Impact of 8mm Video) in which it predicts an annual market of almost \$4bn in electronic photography by 1995—with 8mm dominating camcorder sales.

Sony and Kodak clearly subscribe to a similarly optimistic view in supporting the 8mm format but JVC and Panasonic meanwhile prefer to push ahead with the internationally compatible VHS camcorder.

Most of the video press seem agreed that 8mm video will have a very tough job to do in the VHS market which is after all compatible with over 75 per cent of existing VCRs in the world. Why then 8mm?

Kodak says that its faith in 8mm video is based on the observation that whenever image-making processes are miniaturised, the market expands. True of 35mm photography. True of 8mm film. But the advantages then were not only miniaturisation, but large savings in the cost of taking pictures. The running cost of videotape is not, however, significant compared to film; and the JVC VHS camcorder is smaller than Kodak's 8mm video anyway.

Whether the miniaturisation philosophy can better the experience so far of wholly electronic systems is another matter. The Sinclair pocket TV? The JVC portable videorecorder? The Funai and Technicolor? And the equally miniaturised JVC VCR? Video Recording (VCR)?

Other failures have been compounded from inadequate technology (RCA's video disc), bad consumer design (users of the Philips and Grundig V2000 VCR needed a jet pilot's conversion

provided many of the casual observers of the "video revolution" watch-and-wipe video magazine Movie (a cinema promotion video programme for the price of a blank cassette); some of the so-called video book clubs (programmes by mail order with membership commitments); video advertising programmes for display to captive audiences in hairdressers, airport lounges even maternity wards.

Some pundits in consequence doubt that he specialist programme has a future. Yet surprises always await the cautious and the cynical—such as those who doubted that three well-known names from broadcasting (Tony Jay, Michael Peacock and John Cleese) could make any money by producing training films under the name Video Arts. And last week, a small British company specialising in sponsored productions—Chess Valley Films and Video—even surprised themselves at the British Toy and Hobby Exhibition by selling every available copy of a specially-made videocassette about model railways.

Chess Valley demonstrate in a very small way just how wrong the experts can be. The 50-minute videocassette was made by the company almost out of fun and a fascination for model railways. Marketing wisdom expected at best a modest sale to model shops and little chance of completely recovering the £25,000 production cost. But in just six months, video sales have already done that, with bonuses from a Channel Four transmission on Boxing Day and further sales to Central TV and overseas broadcasters.

Who is to say then that last week's launch of the Video Education Magazine—a monthly video programme for teachers—too specialised to succeed? Or, more esoteric, a new video training series for the foreign exchange markets? The latter is available on VHS interactive video discs with 400 to 800 foreign banks as potential customers—its originators the oddly-named company Financial

As those hoping to make a fortune at the cinema box office have found, the only principle to be learned is that there are principles. Experience, judgement, detachment—maybe. Luck—undoubtedly.

Video & Film

BY JOHN CHITTOCK

course), unlucky timing (EVR was overtaken by the VCR), bad marketing (the earlier Philips N1500 VCR) or a combination of most if not all of these factors (the Ted video disc).

Now that Philips and Grundig have adopted the VHS format, and produced highly acclaimed versions of their own, it may seem easy to deduce that one good investment lesson is to wait—to hold back—and let others make the mistakes.

If this idea has influenced Kodak's late entry into the video business, George Eastman must be turning in his grave because Kodak's domination of photography is being challenged by a pioneer and a succession of "firsts".

Those who would make their pile from programmes rather than hardware have found no fewer dilemmas in taking the right decisions. First in with software schemes have also

March Concrete Pipes



Automotive Navigation for cars

PHILIPS, the Dutch Electronics group, has made some progress in developing an electronic co-pilot for cars which can plan the route, guide the drivers to his destination and always knows where the car is at any time.

The project is code named Carla (car information and navigation). Philips researchers now know, in principle, how the system can be built. They envisage that the system will have a modified compact disc system which could not only play music but also read road maps stored electronically on disc, and a navigation system linked to a central computer which also monitors other car functions.

Initially, Philips believes that such a system would need an electronic compass but eventually it would be possible to carry out navigation via the planned Navstar global positioning system, which will be complete towards the end of the decade.

Process Density meter

SARASOTA AUTOMATION of Winchester, Mass., the food density specialist, has developed a liquid density meter designed specifically for food and drink processing.

All the wetted parts of the instrument are made from stainless steel or nitrile plastic and a smooth bore non-obstructed flow path eliminates the risk of contamination, allowing the measurement of almost any product used in the food industry.

A pickup coil removes data from the tube and the results appear on a light-emitting diode display in a form to suit the customer—per cent fat or sugar concentration, for example. More on 0452 83220.

TEXTILE INSTITUTE HELPS MEDICAL WORK

Carbon fibre knee joints

SURGEONS CAN now replace damaged knee ligaments with orthopaedic implants made of carbon fibre as a result of work done by the Shirley Institute in Manchester in conjunction with A. W. Showell (Surgeon) of Redditch.

Surgeons have tried various types of fibre for ligament replacement, including aramid and Teflon, but carbon fibre is claimed to have the greatest success in the way it "seals" the growth of new

tissue. Although a few technical problems remain, associated with the handling of the carbon fibre, the length of time the patient has to have his or her leg immobilised in plaster afterwards, Shirley believes its research has made the ligaments more abrasion resistant and easier for the surgeon to insert into the joint.

This has been achieved by a careful combination of a carbon fibre core and a polyester

sleeve. Shirley, the leading research institute on the cotton and man-made fibres side of the textile industry, says the reason carbon fibre is used is that it is chemically inert and the fibres are of such fine diameter that they encourage the new cells to grow.

This enables the patient to be up and about much more quickly than in the past. Previously the leg may have had to be in plaster for two to three months.

THE MANAGEMENT PAGE: Small Business

EDITED BY CHRISTOPHER LORENZ

Ruthlessness in self-assessment needed

The HOW TO of... GETTING STARTED

THE starting point for all would-be small businesses should be a rigorous self-assessment by prospective owner-managers. This applies whether the people concerned plan to operate as individuals, or with others. There are four main areas to consider—personal ability, experience, confidence and the implications for family and lifestyle.

Len Collinson, who runs small business start-up courses for the Manpower Services Commission, says that to be successful, small business people must excel in their ability to work long hours, stick with a task, sell against the odds, lead others, make decisions, get things under way, take risks and responsibility, organise themselves and others, and have no problems motivating themselves and those around them.

Anyone falling down on more than one of these abilities should think carefully whether self-employment is for them, especially if their experience includes less than three of the following: management, production or service work, selling, finance or bookkeeping, and control of staff. In any event, they must also feel confident in their ability to cope with at least four of these five activities.

Even if the prospective entrepreneur passes the self-assessment test so far with full marks, the implications for family and lifestyle must be weighed carefully. Survival, let alone success—and especially in the early stages—will probably involve putting the business first, uncertain income for a year, possibly six months without income at all, and risking home and home.

Going ahead without family support would be foolish. Apart from anything else, small business life often leads to something for which people are totally unpre-

pared, loneliness. American studies have shown that people most badly hit are those formerly employed by big companies, where they always had peers to talk to.

You may, of course avoid loneliness by setting up jointly with others, complementing each other's skills and experience, to improve chances. The more crucial question here is will you all work with the same commitment?

Ruthlessness in self-assessment is, in fact, the first lesson of small business. If you kid yourself, you increase your risk of failure. Many do, simply because most people who start small businesses are great optimists, and many have to avoid this third factor. So be honest.

Seeking impartial advice is the best way. You can get this free through your local enterprise agency. These have sprung up in their hundreds since 1982, after earlier ones proved very successful in helping small businesses start up. Most are sponsored by big business and local authorities working together, and have young professionals on secondment from institutions, such as banks and large accountancy practices.

People with practical eyes will look over both you and your proposals, and will say if they think you are over-estimating markets or your own capabilities. More important, they will tell you on to others who can help you strengthen your weaknesses, or proceed if you, and your wares look worthwhile.

The crucial thing is to go into small business life wholeheartedly, but with your eyes open. Do it positively, not for a negative reason, such as merely escaping unemployment. There will be independence and job satisfaction, counterbalanced by loneliness and worry. With good management, there should also be at least a good living. You may even be one of the few who become rich.

Ian Hamilton Fazel
A booklet containing all Ian Hamilton Fazel's "How to..." articles will be published at the end of this month when this series has ended. Inquiries regarding bulk orders should be made to Nicola Bonham, Publicity Department, Financial Times, Bracken House, Cannon Street, London EC4A 3DF. Single copies will cost £3.75.

WHAT'S IN A name? A great deal more than most people would believe—or so John Murphy will tell you.

That deceptively simple question prompted 40-year-old Murphy to abandon his job 10 years ago as Dunlop's UK tyre marketing manager and set up what he claims to be Britain's only specialist creator of names for products, services and companies.

Starting from the spare bedroom of his London flat, Murphy has built up Novamark International to a profitable business which expects to collect over £8m in fees in the current year and join the Unlisted Securities Market in 1986.

Well-known names dreamed up by Murphy and his 37 colleagues include Metro (it came within a whisker of being the Mini Match), Maestro and Montego for Austin Rover, Homebase for J. Sainsbury, Antea for Chanel and Quattro for Coca Cola.

Murphy's path has not been easy. Indeed he admits to having come close to throwing in the towel several times. Yet Novamark has flourished thanks to companies' growing awareness that a brand name is an effective way of establishing an identity for products being sold in increasingly international and diffuse markets. At the same time, the sheer number of brand names already in existence has created a legal minefield for any concern attempting to launch a new line.

This has been coupled with a recognition that trade marks—the legal form of protection for brand names—are cheaper to obtain and defend than patents, which in any case run out after 20 years or so.

So it is no accident that the number of new names filed on the UK register of trade marks has risen from 36,800 annually 10 years ago to an estimated 24,000 in 1984. Japan has more than 1m names on its register, while the U.S. has just short of that number.

Novamark's profits have climbed accordingly: up by £100,000 to £250,000 pre-tax in the year to last December.

In that sense, Novamark is a classic example of a company which has successfully exploited an apparently basic idea by being in the right place at the right time.

It all started when Murphy was detailed by Dunlop to find a name for its latest safety tyre. The problem was to hit on a name that would sound suitable in all languages, while at the same time avoid infringing any of the several million trade marks already registered the world over.

Dunlop's advertising agency came up with a series of ideas



John Murphy with some of the products he has helped onto the market

How Murphy made his mark

Creating names is a growing business for Novamark. William Dawkins reports

which Murphy and his colleague Mike Grant, the group's trade mark lawyer, felt were "either too much like slogans or too banal to be worth protecting."

After several weeks of head-scratching, the pair made their own suggestion—De Novo.

Few would hold up De Novo as an example of pioneering brilliance in branded products, but Murphy points out: "It struck me that if I had this difficulty in finding international brand names, then other people would too."

The demand seemed to be there, but customers were less easy to find. Murphy left Dunlop in 1974, only to be unable to pay himself a salary for two years.

Eventually, the odd contract did begin to filter through, mostly from customers whose own marketing teams had drawn a blank and were trying Murphy as a last resort. Grant joined his old colleague a year later, and the pair borrowed £10,000 from National Westminster Bank to take a short lease on an office in Hanover Square. Grant handled the legal work—registering names and ensuring their legal availability—while Murphy was in charge of name creation. Names are generated

through a process which Murphy calls "brainstorming." He built up a pool of lawyers, academics, managers and even a member of the House of Lords, who were paid to meet occasionally to suggest names according to a brief prepared by Novamark.

The real break came in 1978, when BL, a subject of repeated Novamark malice, called in Murphy to create a name for its latest small car.

Time was already short. BL had only a few weeks before it had to start cutting the Metro name in metal for the car badges, quite apart from preparing promotional material for the launch. The "brainstormers"—who were given no clue to the client's identity—were asked to come up with a short punchy name for a Japanese car to be sold in Western Europe. It had to begin with M, partly to echo the old Morris marque.

Four weeks before deadline, Sir Michael Edwards suddenly changed tack. He announced that the name was to be selected from a ballot of the workforce, using three Novamark proposals. The ballot papers had to be printed in seven days.

Metro, Maestro and Match

were the three candidates, with a recommendation from Novamark that the latter should be chosen because of its wider acceptability in important European markets. Match got a clear thumbs down, but the publicity gained from the contract changed Novamark's fortunes almost overnight.

By 1979, the combined fee income of Novamark and its legal subsidiary had reached £250,000. "For the first time, we started to think of ourselves as a business, rather than a bunch of people doing something we enjoyed," says Murphy.

Grant had already started to do legal work for Mats, the U.S. foods group, and on the strength of that, Novamark invested £10,000 from its own cash flow to set up a New York office, which now earns a quarter of the group's fees. That was followed in the next three years by offices in Paris, Tokyo and Frankfurt. Paris, the most difficult market, has never made a profit, but the others showed that the formula built up in the UK could just as easily work overseas.

By early last year, the volume of creative work flooding through Novamark's new offices in New Bond Street justified the installation of a £100,000 Hewlett Packard computer system.

Apart from providing a data base for the names dreamed up over the years, it also allowed Novamark to link directly with national trade mark databases overseas.

Murphy could see that his funding needs would soon get larger, and that one solution would be a USM quotation. There are plans for further overseas offices in Milan and possibly Amsterdam, and Murphy feels that he could make more use of his extensive client list by opening a design service. It includes ICL, United Biscuits, British Telecom and Hitachi among others, and 70 per cent of his orders now come from existing customers.

With little experience of the City, Murphy sought outside help by recruiting Jeremy Fowler, 41, who last summer resigned as chief executive of Aldom International, the fast-growing design and research group which was one of the first companies to join the USM in 1980. It was an ironic twist of fate because Fowler had approached Novamark in 1981 with the idea of making a friendly bid.

As part-time deputy chairman, Fowler will be in charge of next year's flotation. "Aldom had changed tremendously, and I felt it was time to do something more entrepreneurial," explains Fowler.

In brief...

A PRACTICAL straight-forward layout of the main points of employment law is the basis of a book aimed both at small businesses and at the general managers of medium and large companies who want an overall grasp of the subject.

"Employment Law Keynotes" deals in easy to read short-hand form with the law as it applies before the contract of employment during it and on its termination.

With an eye to the practical application of the law, the book, written by Len Collinson, a management consultant and Chris Hodgkinson, assistant director of the CBI's north-west region, incorporates the texts of seven codes of practice.

It is also presented in the form of a checklist intended to help businesses see whether certain aspects of the law apply directly to them. Examples of what a terms and conditions contract looks like, as well as a health and safety policy statement and a grievance procedure are included.

Colgan Publications, Colgan House, 20 Worsley Road, Salford, Manchester. £7

INVESTORS KEEN to make full use of their £40,000 Business Expansion Scheme tax allowances by the end of the fiscal year can seek guidance in the January/March issue of "An Outline Guide to BES Funds."

Published by John Harrison of Investment and Tax Planning Services, Regal Lane, London NW1, the guide costs £4. It compares the initial management charges, minimum accepted investments and other details of the funds open to investors on January 16. Subscribers will be updated on any new funds as they emerge during the life of the current edition.

BES funds have to be fully invested by the need of the tax year for subscribers to qualify for relief on their 1984-85 investments. The guide contains portraits of the main fund management groups and their directors, along with details of earlier BES portfolios and gives some guidance on their investment philosophies.

Levat Enterprise Fund the 50th venture capital group run by licensed dealers Granville & Co. has invested £375,000 in K. T. Quirke & Sons, an operator of petrol stations and forecourt shops. Levat is taking a 20 per cent

stake in Quirke, which was founded in 1969 as a petrol forecourt operator. Quirke's Motique division runs nine forecourts and shops in the south-west, while its Impulse subsidiary claims to be the UK's largest wholesaler of impulse goods sold in petrol stations.

Impulse started trading in October 1981, achieving a turnover of £1.7m in its first year. The division's sales are forecast to reach £8m in the current year to December, out of a group turnover of £19.6m.

Quirke will use the money to enlarge Impulse's distribution network. The group says the forecourt merchandising market is expanding as the oil industry has found that price pressures are squeezing the margins on petrol sales. The industry has tended to concentrate on a smaller number of high-volume self-service petrol stations, which provide a good opportunity for forecourt shops.

SUNDERLAND Polytechnic is planning a 10-week course to advise young people on how to start their own business.

Starting on February 18, the course will deal with raising finance, taxation, finding a market and choosing premises. Participants will also be assisted in drawing up business plans, the costs of which will be partly met by the Manpower Services Commission.

Course fees will be funded by the MSC, and unemployed participants will receive a tax free weekly allowance. Anybody already receiving an enterprise allowance will continue to do so.

Inquiries should be sent to Frank Patterson, co-ordinator of Sunderland Polytechnic's Small Business Centre, Department of Business Management, 1-4 Thornhill Park, Sunderland, SR2 7JZ. Tel: 0783 41231.

THE RECENTLY published British Information Register may be of help to those seeking funds or business advice. It contains details of investment incentives and services provided by government, regional and local bodies as well as the private sector. It has also been distributed to the portfolio managers of 1,800 international banks and financial institutions as well as to the financial director of 5,000 multinational companies. Further details from: Information Services, Windsor Court, East Grinstead House, East Grinstead, West Sussex. Tel 0342 26972.

Business Opportunities

READERS ARE RECOMMENDED TO TAKE APPROPRIATE PROFESSIONAL ADVICE BEFORE ENTERING INTO COMMITMENTS



FIRST CLASS HIGH-INCOME INVESTMENTS U.S.A. THE FEDERAL EXPRESS PROPERTY ST. LOUIS, MISSOURI

Brand new office and distribution centre. Total surface including land 118,000 sq. ft. located in the 14th largest metropolitan area of the United States.

Tenant: Federal Express, the world's biggest company in courier services, listed on the New York Stock Exchange. (Turnover 1984: \$1.4 billion)

Lease term: 10 years (Turnover Net lease). All operational costs, including taxes, fully paid by the tenant.

Price: US\$2,000,000—mortgage available. Average Net Return to the investor: 9.45%

THE ORION GROUP (Miami, Geneva, Frankfurt, Essen and London) has been operating for more than 15 years, offering high quality real estate investments within a large price range, together with a broad display of services such as legal, fiscal and financial consultancy, property management, financing, set-up and management of direct sales companies, real estate, assets and management, will be glad to provide you with further information.

Please contact:

ORION INVESTMENTS AND TRUST LTD.
15 Rue de Caselle
1201 Geneva/Suisse/Switzerland
Tel: (022) 32.48.05
Telex: 23676 ORION CH

ORION INVESTMENT AND MANAGEMENT LTD.
Suite 203
7100 North Kendall Drive
Miami, Florida 33156
Tel: (305) 445.4844
Telex: 244930 ORION UR

Our Sales Manager will be happy to see you in London during the week of February 4th to February 8th, for appointments please call Geneva 01041/22 32 48 05.

DIRECT SALES OPPORTUNITIES

American manufacturer of high-performance, big profits, household and commercial vacuum cleaners, seeking overseas distributors. Should have experience in direct sales and have national coverage.

Contact: George Przybylski
HEALTH-MOR INC.
151 E. 22nd Street, Lombard, IL 60148, U.S.A.

STRUCTURAL PRECAST CONCRETE MANUFACTURER
East Anglia
SEEKS PARTNER
for future expansion
Principals Only
Write Box F5474, Financial Times
10 Cannon St, London EC4A 3DF

FINANCIAL PARTNER
Having identified a plc takeover, obtaining bank and management control, we require a finance partner/banker for a joint venture.
Initial contact: The Chairman
c/o Box F5476, Financial Times
10 Cannon St, London EC4A 3DF

SUCCESSFUL EMPLOYMENT AGENCY/INTERMEDIARY operating in the Oil and Commercial sectors. We are seeking a partner or joint venture partner with a major overseas presence in the oil and commercial sectors. The Company has a proven track record in the oil and commercial sectors. The Company is seeking a partner or joint venture partner with a major overseas presence in the oil and commercial sectors. The Company is seeking a partner or joint venture partner with a major overseas presence in the oil and commercial sectors.

THREATENED—NEED HELP!
Management/Investment Analyst & Advisor has some capacity available to take on one or two new clients. Specialises in the oil and commercial sectors. The Company has a proven track record in the oil and commercial sectors. The Company is seeking a partner or joint venture partner with a major overseas presence in the oil and commercial sectors. The Company is seeking a partner or joint venture partner with a major overseas presence in the oil and commercial sectors.

IMPORTANT FRENCH MANUFACTURER

With a national sales organisation of 50 representatives
Strong leadership in its speciality

wishes to exploit the agency of a foreign company which wants

To penetrate the French consumer market or catering market

FOOD OR NON-FOOD

Write to: No. E.90047, CONTEXTE PUBLICITE
28, Avenue de l'Opera - 75040 Paris Cedex 01 - France

who will forward

FOREIGN INTERNATIONAL GROUP

WISHES TO PURCHASE A COMPANY OF ANY SIZE SPECIALISING IN COPPER OR MINERAL PRODUCTS IN THE U.K.

A Distribution or a Trader's Company will be acceptable

Write Box F5473, Financial Times
10 Cannon Street, London EC4A 3DF

Prestigious High Technology Industrial Facility

PREMIER INDUSTRIAL FACILITY TO BE SUBSTANTIALLY REBUILT

COMPLETION SPRING 1985

Substantial R&D Available

Price £2,800,000

Write to: CONTACT

Box F5473, Financial Times

10 Cannon Street, London EC4A 3DF

CITATION III

Under 200 hrs

Most Options

Principals Only

Write Box F5466, Financial Times

10 Cannon Street, London EC4A 3DF

FCA AND FELLOW PROFESSIONALS

Offer business expansion scheme opportunity to investors in newly acquired 32-bedroom hotel in excellent Southern England location. Minimum preferred to 10K. Relief possible 1984/85 or 1985/86.

Write Box F5471, Financial Times
10 Cannon Street, London EC4A 3DF

USA

If you are interested in purchasing private manufacturing or distribution companies in the USA with annual sales from \$5 to \$50 million (min. \$500,000 capital required).

Contact:

Business Buyers International, Inc.

8 Century Drive

Paramaribo, NJ 07654, USA

Tel: (201) 255-1711

Telex: 230189 SWIR UR Aton 881

Our professional staff consists of:

Certified Public Accountants

Real Estate Agents

Lawyers

Business Consultants

Write Box F5471, Financial Times
10 Cannon Street, London EC4A 3DF

FULLY EQUIPPED JOINERY WORKSHOP

approximately 5,000 sq. ft. in Middlesex

Joinery company sought or service company in this type of accommodation. Percentage of sales or licence fees in return for space.

Write Box F5467, Financial Times
10 Cannon Street, London EC4A 3DF

CURTAIN FITMENTS

London based wholesalers with textile interests supplying soft furnishings retailers throughout the UK seeks a partner with a substantial company able to exploit our existing regional branch network and national sales force. Objectives would be to expand product range and increase market share.

Contact the advertiser:

Box F5414, Financial Times

10 Cannon Street, London EC4A 3DF

RECRUITMENT CONSULTANCY

Thomson Gilroy engineering and management consultants have established an enviable reputation with their personnel and technical divisions. Planned expansion dictates the acquisition of additional staff. Accordingly, experienced and successful recruitment professionals who may have their own company are invited to contact the managing partner in confidence for an initial discussion.

Write to: CONTACT

Box F5414, Financial Times

10 Cannon Street, London EC4A 3DF

BES INVESTOR

seeks suitable investment(s) particularly in retailing, publishing and related consumer markets.

Please write Box F5463, Financial Times

10 Cannon Street, London EC4A 3DF

SUNRISE DESIGN PRACTICE

Two young talented but previously uncommercial designers specialising in exhibition and display require a partner for a new London practice. The new firm has a good base of clients (£50,000 to £100,000 p.a.) plus own range of exhibition/display products ready to manufacture and market. Some form of joint venture could also be considered.

For further information please contact our accountants:

CHAPMAN WONG
Chartered Accountants
7 New Concordia Wharf, Mill Street
London SE1 2BA - Tel: 01-521 8761
Telex: 854791 WHARF G



The Greatest Growth Opportunity of the Decade... Professional Computer Retailing.

The opportunity is rare - The time is now.

After two years study of the U.K. market Entré Computer Centers, America's fastest growing franchisor of retail computer centres... with over 250 franchises... is now awarding franchises to qualified business professionals in the U.K.

Owning an Entré franchise is a substantial opportunity. And if you have a track record of sales and marketing success, plus the entrepreneurial ability to manage a multimillion pound business, then Entré could be the greatest opportunity of your professional life.

We provide a comprehensive, professional marketing programme. An approved product mix of the world's leading hardware and software. Extensive training programmes. Ongoing and dedicated Field Support. Advertising programmes, promotional programmes and tools. Plus a unique consultative systems sales

approach for profitable repeat business. You provide liquid capital of £70,000 plus additional financing - and the ability, drive, ambition and professionalism to become part of Entré's rapidly expanding worldwide Network.

If you have the professional credentials that demonstrate you're one of the best - call Fiona Samson today on Slough (0753) 31222.

ENTRÉ COMPUTER CENTERS

For the most in personal computing. European Headquarters, 17 Bath Road, Slough, Berks. (0753) 31222.

RECRUITMENT CONSULTANCY
Thomson Gilroy engineering and management consultants have established an enviable reputation with their personnel and technical divisions. Planned expansion dictates the acquisition of additional staff. Accordingly, experienced and successful recruitment professionals who may have their own company are invited to contact the managing partner in confidence for an initial discussion.

Write to: CONTACT
Box F5414, Financial Times
10 Cannon Street, London EC4A 3DF

A GOLDEN GATE OPPORTUNITY
"MEET ME AT THE GATE" could mean Meet Me At The Bank. Investors are being sought to transfer their Kings Head success in the West End of London. Further details please contact: Gurnee & Partners, 10, Cannon Street, London EC4A 3DF. Tel: 01-226 8861

Business Opportunities

READERS ARE RECOMMENDED TO TAKE APPROPRIATE PROFESSIONAL ADVICE BEFORE ENTERING INTO COMMITMENTS

BUILDING FINANCE AVAILABLE

Building finance available in individual 'tranches' of £200,000/£1,000,000 for experienced residential developers. The Bell Group of companies will introduce normal 'clearing' bank finance if required for both land purchase and commencement of building 'topped' up by finance of 20/25 per cent provided by off-shore bank at only 20 per cent higher rate, etc. over required period. Associated sheltered home company with very full programme might also be prepared to hand over certain existing sheltered housing sites with planning permissions.

Reply with full details to Chairman, the Bell Group of companies, 10 Park Place, St. James's, London SW1

THE KEY SWISS COMPANY FOR YOUR INTERNATIONAL TRANSACTIONS

- ★ Handling of international transactions.
- ★ Back-to-back operations (L/C basis).
- ★ Formation, domiciliation and administration of Swiss and offshore companies.
- ★ Consultancy on countertrade operations (barter, counter-purchase, clearing etc.).
- ★ Follow-up of countertrade operations.
- ★ Marketing countertrade products: soft commodities, metals, chemicals, oil products.
- ★ All fiduciary and trustee services.

Experienced team. Prime financial backing.

Please contact us in full confidence:

DE BERIG S.A.
12, Chemin Rieu, P.O. Box 130
1211 Geneva 17 (Switzerland)
Phone: 47 89 86 Telex: 421 896 DEB CH

BUSINESS DEVELOPMENT

Successful energetic professional consultant commuting regularly between UK and USA's Silicon Valley available to undertake product sourcing assignments to provide major new products, ideas, technology transfer, marketing and business development opportunities to growth-oriented companies.

Assistance also available to individual and corporate investors seeking merger/acquisition prospects.

Write in first instance to:

R. S. Stewart, M.B.A.
GOODYER, SMITH & WATTS
81, Wimpole Street, London W1M 7DB

CARPET

OF INTEREST TO PROPERTY COMPANIES, HOTEL OR LESSEE GROUPS

70,000 square feet, heavy duty Contract Grade 5, Wilton carpet available before fiscal year-end. The carpet has an attractive linen weave design in brown/rust colours, ideal for offices, hotels, theatres or cinemas. Woven 36 in wide with wool/nylon pile, the carpet is all perfect. Immediately available in minimum cut-off lots of 500 square yards. Price £1355 sq. yard, delivered UK, plus VAT.

Details and samples available from:
Paul Tankard, Sales Director
TANKARD CARPETS LIMITED
York Mills, York Street, Fairweather Green, Bradford BD8 0HR
Tel: 0274 495446

WANTED

For Successful U.S. Corporation

European tax shelter sales agents (retail/wholesale), financial planners, accountants, bankers, general partners to represent our \$120 million program. All investments financially guaranteed by a major U.S. institution. We are ready to go now! Call:

A. Thomas Thorson, President

Strata Oil

1370 Avenue of the Americas, New York, New York 10019
Telephone: (212) 977-3370 Telex: 708372 (STRATA NYK)

FRETTE®

Leading European Company in manufacturing and distributing luxury linen and lingerie is looking for financial partners for opening shops under franchise contract in the following countries: Japan, Canada, Venezuela, USA, Hong Kong, Singapore, Malaysia, South Africa, Australia, France, Belgium, Germany.

Please contact London Office:
TEL: 01-629 1517 or TELEX: 338-852 (FRETTE) or Milan Office: TEL: 02-584 794-261 or TELEX: 310678

100% I.B.A. INVESTMENT

in well known
Oxon market Town
with
Local Authority
covenant.
£450,000

GILBERT
WALKER
& PARTNERS
(0865) 723551/2

DYNAMIC CENTRAL LONDON COMPANY

Insurance and Pensions
looking for two entrepreneurs earning £75,000 plus, to obtain shares in our company which is about to be quoted. Unique package.
Write Box F5465, Financial Times
10 Cannon Street, London EC4P 4BY

LEASING FINANCE

Ring the amount

£5k £50k £500k
£1m £5m £10m

Find the rate

0% 1% 2% 3%
4% 5% 6% 7%
8% 9% 10%

Now ring us!

First Leasing Consultants Ltd.

01-493 1302

ZUG/SWITZERLAND

- ★ Formation, domiciliation and administration of your own Swiss company
- ★ Portfolio Management
- ★ Low corporate and individual taxation

For further information call or write:

Zugswiss 76, CH-6301 Zug

TEL: 0421 51 44 - Telex: 85858

Telex: Monte Carlo 55/50 84 78

Want to import

Leading Japanese brand names

TELEVISIONS AND VIDEO RECORDERS

Your offers to:

MARCO SERVICES LTD.

15-17 Swan Street

Manchester M4 6JJ

Tel: 061 852 8559

Invest two weeks in

BETTER HEALTH

Enter cardiac risk prevention and health reconditioning programme now. Elegant mansion, peaceful Surrey countryside, highly qualified medical supervision, 45 mins from London.

Visit Eton Medical Centre

Ennors, near Godalming, Surrey

GU8 5AL - Ring (042) 879 2233

DIRECTORS

Before you increase your pension contributions
TAKE A SECOND OPINION

As a result of recent Press comment you will recognise the need to maximise your pension options in the very near future before the introduction of any adverse legislation.

Increasing contributions to your existing arrangements may not be the best solution. There are other options of which you may not be aware. Our wide range of corporate financial services enables us to take a more objective approach to corporate tax planning than is possible by a conventional life and pensions broker.

We will be pleased to submit our recommendations, without cost or obligation, if you will just WRITE your name on a letterhead and post to me TODAY.

Managing Director (Dept. FPH)

Ackrill Carr PLC

Tricorn House, Hagley Road, Birmingham B16 8TP

EXPORT OPPORTUNITY/TRANSFER OF TECHNOLOGY

JOINT VENTURE/MARKETING YOUR PRODUCTS TO THIRD WORLD COUNTRIES

Transpac is well placed to negotiate significant contracts, select appropriate partners for joint venture/exploit high technology or to export your products through our marketing network in India, Gulf, Tunisia, Algeria, Syria, Brazil, Colombia, Bangladesh and Far East.

Companies interested may contact our Sales Director with their product brochures and specific areas of interest.

TRANS-PACIFIC TRADING & CONTRACTING CO. N.V.

Tel: 01-493 8019

Telex: 946240 CWEASY G (quoting 19006345)

GENERAL AVIATION FACILITY ON THE CONTINENT

Unique opportunity to acquire one of the few small general aviation facilities on a continental international airport. Within the Common Market. Ideal location for international marketing. Business done every day in English, French, German and Dutch by multilingual management who will stay.

Hangar working space about 10,000 sq ft. Well-equipped electronics shop. Public transport approval. Wide range of dealerships. Good contacts in western Europe and Francophone Africa.

Write Box F5464, Financial Times
10 Cannon Street, London EC4P 4BY

Substantial Funds

available to purchase for immediate payment (banker's draft or telegraphic transfer), consumer branded goods - home market or abroad. Particularly interested in photographic/electronic/office products but will consider any merchandise (not perishable or foodstuffs).

Goods will be offered to our worldwide network of agents in agreed defined market areas. Absolute discretion and proof of export guaranteed.

Principals only. Please telephone telex:
01-541 1828 Tlx: 261759 (ref WVM) 06264 75765 Tlx: 849898 (ref HS)

Businesses Wanted

SAFETY

This private limited Company, the market leader in the distribution of safety equipment, protective clothing and industrial rubber and plastic products, wishes to expand by forming an association with or acquisition of, manufacturing/distribution companies with similar interests, based in the Midlands, South and South-West areas of the UK. Would interested principals please contact:

Tom Martin

Chairman and Joint Managing Director

ARCO Limited

P.O. Box 21, Waverley Street, Hull HU1 2SJ

Above Average Price

Public company requires to purchase successful growing businesses with net profits in excess of £150,000 per annum. An above average price will be paid for good quality companies.

Write in first instance to Chairman, Box G10414, Financial Times
10 Cannon Street, London EC4P 4BY to arrange an appointment

Growth Businesses

Public Company with substantial cash reserves would like to hear from successful privately held growth businesses with a view to discussing the possibility of a reverse takeover situation.

Write with preliminary details in confidence to: Chairman,
Box G10412, Financial Times, 10 Cannon Street, London EC4P 4BY

RESOURCES FOR TECHNOLOGY

We are the Technology Transfer Group within a substantial international Corporation and wish to establish contacts with privately controlled hi-tech companies involved in leading-edge applications of materials technology who believe that the financial, technical, sales or other resources available through collaboration with a larger organisation could be appropriate to their own needs.

WANTED

TIMBER MERCHANTS / SAWMILL
engaged in import/export sought for outright purchase or close co-operation with Scandinavian principals.
Write Box G10424, Financial Times
10 Cannon Street, London EC4P 4BY

Small but highly profitable MORTGAGE, LIFE AND PENSIONS BROKERAGE
in Central London with office in Gibraltar about to be quoted looking for acquisitions or merger.
Write M.D., Box F5468, Financial Times
10 Cannon Street, London EC4P 4BY

N.W. MIDLANDS
ENGINEERING COMPANY
with excess capacity and available cash funds is interested in acquiring established or developing company in similar field.
Write Box G10427, Financial Times
10 Cannon Street, London EC4P 4BY

BUILDING & PROPERTY COMPANIES REQUIRED
With or without land bank and tax losses. We also require a building firm in Thames Valley with sound reputation and management.
Enquiries to:
James Watkins
MICHAEL SHAWLY GROUP
(04848) 71321

MAJOR FIRM
Involved in insurance broking, life assurance, unit trust advisory services, pensions and benefits consultancy, seeks acquisitions. Commission/income between £250,000 to £5m or considered. Write Box G10420, Financial Times
10 Cannon Street, London EC4P 4BY

GENEVA

FULL SERVICE IS OUR BUSINESS

- Law and Taxation
- Mailbox, telephone and telex services
- Translation and secretarial services
- Formation, domiciliation and administration of Swiss and foreign companies
- BUSINESS ADVISORY SERVICE S.A.

7 Rue Murie, 1207 Geneva
Tel: 34.05.40

BUILDING PRODUCTS CO.

Marketing uPVC Claddings to the Building Industry: Councils, DIY outlets, throughout U.K. The market has been carefully researched and a full feasibility study available to investors.

Write in confidence Box No. 15358
Financial Times, 10 Cannon Street, London EC4P 4BY

DEC PDP/11 or VAX???

Buying a DEC PDP/11 or VAX???

with 16K or 32K memory

and all the terminals and programs you need

just check with us

before you buy

Ring Martin or Neil

01-888 5235

PALE

WANTED

MARKETING DISTRIBUTOR

Superior Cooking Fat with Vitamin E & C, 12% Kilo Plastic Buckets and 250g tubs for cooking.

Supply 20 tons of liquid by container delivery and 250g tubs.

Box F5478, Financial Times, 10 Cannon Street, London EC4P 4BY

A SWISS ACTUARY

will show you how to increase your capital

FROM 100,000 - 575,000 IN 10 YRS

with your life insurance in Switzerland combined with US Bonds.

Your security: transacted through Swiss life insurance companies and banks.

INVESTMENT
PO Box 703, CH-6200 Zug

FINANCIAL DIRECTORS

BIG SAVINGS PLUS UP TO 75% TAX ADVANTAGE ON NEW

ALDOZAP PURCHASES

made before 31 March 1985.

Avoid unnecessary corporation tax liability. PHONE JOHN

GILLMAN, 01-493 8019

OR TELEX: 657165.

SPAIN/EC

Experienced businessman seeks

representations of companies interested in Spain/EC.

Very well introduced wine, steel scrap, shipping, transpacific sectors and industry in general. Office and sales available. Write to:

ROSA, Plaza de Espana 5

48001 Bilbao, Spain

Offices to Let

HAMMER HOUSE, W1

2 Prestige Offices, fully furnished

Telephones installed, telefax available. Fully inclusive of service charge, rates, heating, power, electricity £200 p.w. 24 hr access.

Please phone: 01-434 1881 to view

KIRKBY CENTRAL LTD.

Telephone (0928) 594311

Telex: 597285

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

01-434 1881

Business Services

PROFIT IMPROVEMENT

Increased profitability through effective management of working capital is the service we offer.

- ★ Managing Debtors more effectively
- ★ Planning cash flow
- ★ Optimising stock control
- ★ Control through computerisation

For a confidential appointment or a copy of our company brochure please contact:

UK COMPANY NEWS

Alexander Nicoll on the rationale behind Harrisons' bid for Pauls
Seeking to plough parallel furrows

Pauls, target of yesterday's £106m bid from Harrisons & Crossfield, may rue its publication last month of a glossy 24-page brochure giving a very full account of the company's activities and newly-streamlined structure.

Mr Thomas Prentice, Harrisons chairman, quoted liberally from it yesterday in setting out his company's rationale for the bid—though he said Pauls had been identified as a possible acquisition before its name was changed last June from Pauls & Whites.

Harrisons' good timing is also in evidence on a more fundamental level than this, however. Pauls, facing diminished growth prospects for its animal feed and malt businesses, had strengthened its flavours and fragrances division and branched into food for humans, but has yet to see the full benefits in its bottom line.

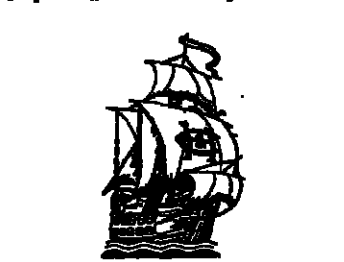
Mr Thomas Prentice, Harrisons chairman, quoted liberally from it yesterday in setting out his company's rationale for the bid—though he said Pauls had been identified as a possible acquisition before its name was changed last June from Pauls & Whites.

Growth in pre-tax profits has been slow, despite steady increases in turnover. In the year ended March 31, 1984, pre-tax profits slipped to £11.5m from £11.6m on turnover of £346.3m, up from £304.5m. The company has forecast little change.

Pauls' largest business, animal feeds, has suffered from EEC farm policy. Initially, the company welcomed Britain's entry into the Common Market on the argument that high prices paid to farmers would keep up feed prices. But margins on feed fell sharply in the 1970s.

Perhaps the biggest blow came

last year, when milk production quotas were imposed and sales of cattle feed temporarily dried up before resuming at a much lower level. Pauls has also suffered from an exceptionally long downturn in the "hog cycle"—it is strongest in pig food and also breeds pigs in conjunction with farmers—although the market improved considerably in 1984.



Pauls has about 8 per cent of the UK animal feed market, which it estimates at 10m to 12m tonnes per year, and concentrates on selling in the areas around its 11 feed mills. While remaining a strong competitor in this field, it has decided that growth for the company lies elsewhere.

"The Common Agricultural Policy seems designed to bring about violent fluctuations in the supply and hence profitability of livestock with consequent effects on the feed industry," Pauls said in its recent brochure.

Malt, Pauls' second largest activity, has also been going through a tough period. The levelling off of UK beer con-

sumption and overcapacity in Scottish distilleries has forced Pauls to close two maltings, leaving nine. It has also just extricated itself from an expensive mistake it made in investing in a West German malster.

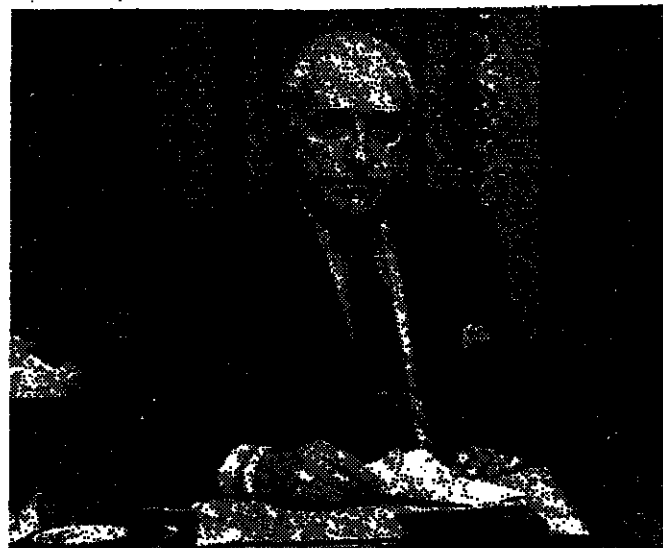
A further thorn in the company's side has also been removed with the disposal of a feed company in Nigeria, where it retains a mail importer which it says is doing well.

The City has been impressed by Pauls' moves to cope with all these problems, and by its build-up of the flavours and fragrances division which offers good growth prospects. Products include hops, essential oils, spices, essences and flavours, including those found in potato crisps and other snack foods. Last year it bought Telford Foods, a maker of mussels and other products.

If Harrisons' Mr Prentice has also been impressed, he clearly believes that Pauls could achieve a better return on capital. But he was choosing his words carefully yesterday and avoiding any direct criticism of Pauls' management record—despite Pauls' obvious distaste for his approach.

"Pauls' policy of providing operating units with autonomy is identical to Harrisons'," he said. "We want the company to run under the name of Pauls and under Pauls' management." The synergy between the two companies, he says, lies "in their management styles and philosophies."

Mr Prentice does not claim



Thomas Prentice, chairman of Harrisons & Crossfield

that there is direct synergy between the businesses though he stresses their common experience of agriculture and says that Pauls should be a temperate agriculture division parallel with Harrisons' existing tropical activities.

Harrisons estimates that group profit before taxation and extraordinary items for 1984 was not less than £32m (£56.8m) and that earnings per ordinary share were approximately 37p (24.55p).

The company also intends to pay a final 1984 dividend of 15.5p,

making 30p against 17p. The group also disposed of its interests in 10 UK plantation and investment companies in 1984, giving rise to extraordinary profits of approximately £9m after taxation.

Despite Mr Prentice's muted tones yesterday, a battle for control is now in prospect. In the City, analysts believed that a number of companies could be interested in making a rival bid—although Pauls' principal competitors could well be ruled out on monopoly grounds.

Hoskins 'leapfrog' battle
nears end

By Charles Batchelor

AN END is in sight in the long-running takeover battle for Hoskins and Horton, the hospital equipment and light engineering group. London and Midlands Industrials (LMI) has increased the value of its cash bid to £8.8m and declared that both this and its existing share offer will not be increased or extended beyond February 17.

LMI has been fighting a leapfrog battle with Scottish Heritage Trust (SHT) since the end of November for the hand of Hoskins. SHT first put in a £5.5m bid on October 4.

The Hoskins board has recommended all three LMI takeover offers but SHT, which has increased its original bid no fewer than three times, has the advantage of a 25.5 per cent stake in Hoskins built up before the bidding started.

LMI backed up its latest offer with a forecast that it will pay a final dividend of 12.5p per share for the year ending March 31 1985 to make a total for the year of 9.5p, an increase of 19 per cent over the previous year.

The value of its cash offer has been increased to £25.5p from 20p. This increase was made possible by LMI's underwriting of the share offer through its merchant bankers, Henry Ansbacher.

The share offer made by LMI on January 9 is unchanged. This comprises seven LMI shares for every four Hoskins shares. At LMI's closing price of 200p yesterday the offer is worth 350p per share or a total of £3.5m.

An important element of the LMI bid is an agreement to sell the Horton quarrying and ready-mixed concrete business to Redland, the building products group, for £4.47m.

SHT currently has on the table an offer of 10 of its own shares and 26p cash for every three Hoskins shares. At SHT's closing price of 68p yesterday this offer values Hoskins at 240p per share or a total of £8.6m. There is a cash alternative worth 32p per share, a total of £8.7m.

SHT also has an agreement to sell on the Horton quarrying business—to Tilcon, part of the RTR group, for £5m.

With the offer allowed, Hoskins' shareholders choose a share-only option, avoiding any immediate capital gains tax liability, whereas the SHT share and cash offer implied some tax liability.

LMI owns 2.7 per cent of Hoskins and has further acceptances to its previous offer of a further 5.9 per cent of Hoskins' shares.

Under Beatrice and an earlier U.S. Tannoy's public address system business was run down to concentrate on audio equipment. It lost money between 1978 and the buy-out in January 1982.

Its new British owners resumed production of address systems and these will form the core of Westminster Audio's hire business, though other manufacturer's systems are not excluded.

Tannoy maintains voice-raising and recording systems in the Palace of Westminster and provides the sound feed for BBC coverage of both chambers.

Fleming Enterprise
Fleming Enterprise Investment Trust had a net asset value per share of £22.4p at the end of 1984 compared with 257.5p six months earlier.

The interim dividend is lifted by 0.5p to 2.5p net, a total of 7.5p was paid for 1983/84. Total assets increased from £25.76m to £32.24m and the directors say that during the six months performance was boosted by the increase in the value of Neighbourhood Stores on receipt of an offer for its capital, by favourable price performances from several of its larger investments, and by the dividend investments attaining a full listing.

Derwent Valley
A final dividend of 70p from Derwent Valley Holdings makes a total of 95p for 1984. The company was created last August as the new holding vehicle for Derwent Valley Railway.

Turnover came to £107.190, compared with £121.120, and the profit to £44,080, against £45,231. With the addition of the surplus on disposal of fixed assets £32,226, down from £228,118, the pre-tax profit for the year is £76,406 (£74,347).

Tax takes £19,500 (£28,147) and there are extraordinary debits of £43,909 this time, being the costs of the scheme of arrangement. Earnings are shown at 110p (370p) per share.

African Lakes
Strong tea prices led to more than doubled pre-tax profits of £1.26m at the African Lakes Corporation for the year to July 31. The dividend is stepped up from 1.1p to 1.5p net, and a one-for-five scrip issue is also proposed.

Turnover of this tea and rubber planter increased from £6.01m to £7.74m. Tax 100 £207,811 (£93,389) and attributable profits came out at £668,973, against £297,665. Earnings per share were ahead from a stated 6.15p to 15.67p.

Lower values and metallurgical problems resulted in a loss on G and P's mining operations and drought conditions affected its agricultural results.

Bulloughs call for
£11.5m with an
eye on borrowings

By ALISON HOGAN

Bulloughs, the light engineering and furniture manufacturer, yesterday announced a 47.5 per cent jump in pre-tax profits to £10.12m in the year to October.

The group also gave details of a one-for-one rights issue to raise £11.5m aimed at bringing down borrowings following a number of acquisitions.

The 65p price of the rights compares with yesterday's closing market value of 465p, up 37p.

The directors decided to discount the issue deeply to avoid underwriting costs and in effect split the shares and bring them down to a price level closer to the range of March 1983 when the company made its last scrip issue.

Bulloughs' net borrowings had risen to £13.2m before the rights issue, but as though the management's acquisitions, including two purchases in March last year, George Barker, a manufacturer of refrigerated display cabinets and a major Marks & Spencer supplier, was bought for £5.5m.

Westwood Holdings, a maker of paper shredders, guillotines, collators and binding machines, was acquired for £4.5m.

With net borrowings almost eliminated, Mr Derrick Battle, Bulloughs' managing director, expects the group to make further acquisitions of a similar type and size with profits of up to around £1m.

Bulloughs' pre-tax profits of £10.12m were up from £6.86m. The increase was largely due to contributions from George Barker and Westwood, along with an "excellent result" from Bulloughs' largest subsidiary, Project Office Furniture.

The special products division increased its earnings, helped by a first full year contribution from Pipeline Engineering, a maker of equipment for cleaning oil and gas pipelines. Other products within this division include domestic wire products, pressure gauges and library shelving.

Turnover of Propagator, a manufacturer of raised office and computer floors, was higher though profits were lower because of increased pricing competition.

The steady expansion of Bulloughs through acquisitions makes year on year comparisons difficult and it focuses on the management's view of the company's performance. The board outlined its strategy as follows: to acquire and combine companies to create a high degree of autonomy to local management. It is a philosophy that the likes of Lord Hanson and Sir Owen Green have put firmly in vogue and one Bulloughs' predominantly institutional shareholders appear to approve.

The share price has come up 12 months from 254p to yesterday's close of 465p up 37p on the day where the historic p/e is 14.5.

Western Motor moving on with its rationalisation

THE FIRST phase of Western Motor Holdings' programme to reduce its borrowings and restore profitability is under way, and the directors are currently pursuing the next step.

Initially, the plan was to close all garages and associated assets at Cheltenham, Penzance and Launceston. To date only the sale of Cheltenham has been completed, although contracts have been exchanged to dispose of the other two. The properties will realise an aggregate £500,000, which is some £100,000 below the end-1983 book value.

Further details of the second phase will be contained in the annual report covering 1984, which will be published in April.

The directors of Western Motor Holdings, which owns 29.9 per cent of the Western Motor ordinary capital, have given their full support to the programme.

The Austin-Rover Group has formally notified the company of the termination, as from the end of this year, of the distributor agreements relating to Rover and Truro.

Western Motor has been incurring substantial losses for a number of years and last November announced its plan to sell off surplus properties to reduce bank debt and restore profitability.

Textured Jersey up by 64%

Textured Jersey, a knitted fabric maker, increased profits before tax by 64 per cent, from £183,000 to £307,000 for the six months to October 31 1984. The figure included "an appropriate amount" from the company's insurers to cover a fire at one of its Corby factories in September 1983.

Sales increased 21 per cent to £3.05m but, the company says, while business has increased its market share, margins remain under pressure reflecting high street changes and increased competition.

Herrburger Brooks loss

Trading conditions continue to be difficult for Herrburger Brooks, which serves the piano trade, but the fall in sterling against the dollar has hit the group hard.

It has increased material costs substantially and led to a loss on exchange of £51,000 in the half year ended November 30 1984, and this in turn has moved the group round from a £97,000 profit to an £11,000 loss pre-tax.

Turnover in the period dipped by 1.7 per cent to £2.97m and the trading surplus fell from £121,000 to £13,000. Interest charges were again £24,000. The directors believe that additional

business in Asia and Africa will help towards a return to profitable trading in the second half, but stress that the market for the group's products remains difficult.

Potential areas of diversification in the woodworking field are under review, but considerable research is required because of the very nature of the present production—piano actions, keys and hammers.

Loss per share for the half year came out at 0.57p (earnings 3.71p after tax £48,000). For the whole of 1983-84 the pre-tax profit was £181,000 and the dividend 1.5p net.

Restway offering 1.26m
shares via subscription

Williams de Broe Hill Chaplin are offering 1.26m shares in Restway Retirement Homes by way of subscription at £1 a share.

The recently formed company will join the growing number of businesses specialising in building accommodation for the elderly.

The shares will not initially be traded on the full stock market or the USM. Investors in Restway will, however, qualify for tax relief under the Government's Business Expansion

Scheme. Restway was founded by Emrys Fuge and Walter Davies, both chartered surveyors. They intend to progressively increase the activity of the company and expect that in five years time it will have several developments under construction with further sites both purchased and under investigation.

It is their intention to launch Restway on the USM at that time providing the company's performance and the condition of the market are appropriate.

Warner Estate tops £3m

Warner Estate Holdings, property investor, pushed full year taxable profits up from £2.5m to £3.15m. The dividend is being raised by 4p to 15p with a recommended final payment of 10p (7p).

Turnover for the year to end-September 1984 amounted to £10.23m, against £9.55m. Tax totalled £1.29m (£948,000), after which earnings per share were stated as 18p (14.4p). Extraordinary credits of £2.82m (£3.27m) were transferred to other reserves.

During the year the company purchased 250,000 of its own shares for cancellation. A further 25,000 shares can be bought, at a maximum 50p each, before September 8 1985.

Total net book value of land and buildings at the year-end was £62.52m (£53.25m). Net asset value amounted to 778p (634p).

Tannoy hire
and rentals
bought out

By Charles Batchelor

THE HIRE and rentals division of Tannoy, the public address system manufacturer, has been bought out by its management for £175,000.

Tannoy's manufacturing operations were themselves bought out by their management from the company's U.S. owners, Beatrice Foods, two years ago.

Tannoy's management, based in Coatbridge, Scotland, could not devote sufficient time to the small hire and rental division, which moved back into the former Tannoy group headquarters in West Norwood, London.

The hire and rental division, renamed Westminster Audio Communications, expects to achieve turnover of £450,000 in 1985, said Mr Jim MacLennan, managing director. It was a profitable part of Tannoy, he said. It employs 21 people.

Three senior executives of the division, led by Mr MacLennan, have put up £35,000 to take a 33 per cent stake in the new company with Midland Bank Venture Capital providing the balance.

Under Beatrice and an earlier U.S. Tannoy's public address system business was run down to concentrate on audio equipment. It lost money between 1978 and the buy-out in January 1982.

Its new British owners resumed production of address systems and these will form the core of Westminster Audio's hire business, though other manufacturer's systems are not excluded.

Tannoy maintains voice-raising and recording systems in the Palace of Westminster and provides the sound feed for BBC coverage of both chambers.

Australian
move by
County Bank

County Bank, the merchant banking arm of National Westminster Bank, is to establish two subsidiaries in Australia to provide services in the domestic and international capital markets, corporate advice and investment management.

Trading is expected to start towards the middle of this year. The move follows approval granted under Australia's foreign investment policy, and gives an entree for NatWest to a country which is still closed to full foreign commercial bank participation.

Delta agrees S. A. Africa share sale for £5.2m
Delta Group has agreed the sale of its half share in R. Jackson Holdings, a South African metal stockist and distributor, for R11.7m (£5.2m).

Dr Robert Easton, head of Delta's resource services division, said the move was intended to complete a diversification away from the group's traditional metals business.

Haggie of South Africa, which has held the other 50 per cent of Jackson, is to take full control. In 1981 Delta obtained an option to sell, exercisable this year, as part of a reorganisation.

Dr Easton said Jackson had been making modest losses for the past three years. The proceeds, payable in December, were put yesterday at nearly triple the current book value.

N.A.V. at 31.185
U.S.\$48.59
Viking Resources International N.V.
NVO Plc
Holding & Finance N.V.
Haringvliet 214, Amsterdam

LADBROKE INDEX
Based on FT Index
967.971 (unchanged)
Tel: 01-427 4411

Granville & Co. Limited

Member of The National Association of Security Dealers and Investment Managers
27/28 Lovat Lane London EC3R 9EB Telephone 01-621 1212

Over-the-Counter Market

High Low	Company	Price	Change	Gross Yield	P/E	Fully
144	123 Ass. Brit. Ind. Ord.	142	—	8.8	4.4	7.9
101	135 Ind. Ord.	100	—	10.7	4.0	10.0
77	51 Airsprung Group	83	—	6.4	12.1	5.9
42	28 Amalgams & Rhodes	37	—	2.9	7.8	4.8
12	10 Barton Hill	12	—	2.5	12.2	5.2
68	42 Bray Technologies	48	—	3.5	7.3	5.8
201	170 CCL Ordinary	170	—	12.0	7.1	—
162	110 CCL Preference	162	—	12.0	7.1	—
610	100 Carborundum Ord.	610	—	5.7	0.7	—
85	84 Carborundum 7.5pc Pr.	85	—	10.7	12.4	—
281	182 Frank Horrell	281	—	6.5	10.6	6.7
24	24 James B. Shaw	24	—	8.5	4.0	13.3
32	25 Frederick Parker	31	—	4.3	13.3	—
61	32 George Blair	61	—	2.7	9.6	3.4
218	186 Isla Group	186	—	15.0	8.0	7.4
124	104 Jackson Group	104	—	4.9	4.7	4.8
28	28 James B. Shaw	28	—	13.7	4.3	9.8
93	83 James B. Shaw Sp. Pr.	93	—	12.9	14.3	—
86	71 John Howard and Co.	86	—	1.0	6.8	6.7
152	100 Languish Ord.	152	—	15.0	15.0	—
602	300 Minihouse Holding NV	602	—	3.8	0.8	43.5
120	21 Robert Holdings	120	—	8.0	14.3	—
60	28 Scrutons "A"	60	—	5.7	18.4	16.3
44	37 Torday & Crislie	44	—	4.3	1.2	18.0
27	17 Uniflow Holdings	27	—	1.3	6.2	12.1
88	88 W. S. Yeates	88	—	7.5	8.0	12.2
247	224 W. S. Yeates	247	—	17.4	7.7	5.4

Prices and details of services now available on Prestal, page 4019

NEL BASE RATE
13%

with effect from 18th January 1985
Rate of interest currently allocated to
NEL PENSIONS GUARANTEED
GROWTH POLICIES
13%
with effect from 18th January 1985

NEL a Britannia Arrow
Company
National Employees Life
Founded in 1960
Funds exceed £250 million



FORWARD TRUST GROUP

The asset finance specialist. A member of Midland Bank Group.

To: Forward Trust Group Limited,
P.O. Box 362, Birmingham B15 1QZ.
Please send me a free copy of
"Finance for Industry & Commerce".

LEASE PURCHASE FLEET HIRE TAXI BASED LEASING

**FINANCE FOR
INDUSTRY
& COMMERCE**

FORWARD TRUST GROUP
A member of Midland Bank Group

NAME _____
TITLE _____
COMPANY _____
ADDRESS _____
TEL NO _____ FT5/2/85

At Forward Trust Group, we have the right products to help finance new plant and equipment in the current tax year.

Our Tax Based Leasing packages contain uniquely advantageous rental terms which we will not be able to repeat after 31st March 1985, when the current 75% capital allowances disappear.

For a business making taxable profits, Forward Trust Group's Lease Purchase products can allow a business to benefit from this financial year's unrepeatable advantages without upsetting cash flow projections.

Nor need interest rate movements cause you to have worries about future cash flow problems. Forward Trust Group's Flexi-Term can protect your cash flow by automatically extending your payment period if interest rates rise—and give you the bonus of a shortened payment period if rates fall. Our Flexi-Term Plan, like our Lease Purchase Products, enables businesses to claim capital allowances.

Full details of these and many other Forward Trust Group services are in our booklet *Finance for Industry & Commerce*.

Phone us or send the coupon now for your free copy.

TELEPHONE JIM HASTIE NOW ON 021 455 9221
OR JOHN McDERMOTT ON 01 920 0141.

UK COMPANY NEWS

Eric Short looks at plans to sell Lloyd's Life

Lloyd's stirs takeover interest

TAKEOVER interest in the UK life insurance sector picked up considerably yesterday when the Corporation of Lloyd's announced that it was putting up for sale its subsidiary life company, Lloyd's Life Assurance, to the highest acceptable bidder.

The interest was intensified when Mr Peter Cadbury, of Morgan Grenfell, the merchant bank which controls the Corporation, indicated that he was looking for the sale to raise around £100m, even though the latest valuation, at the end of last year, puts Lloyd's Life on an official market capitalisation of £40m.

This might look like small beer after Hambro Life's £500m sale to BAT Industries and Abbey Life's £400m-plus proposed flotation. Nevertheless, the sale is expected to arouse institutions eager to enter the UK life market through an established life company.

There has been a trickle of life companies for sale over the past couple of years. But apart from Hambro Life and Abbey Life, there have been small or companies established in the past decade or two. Prior to this, virtually no life company ever changed ownership.

But conditions are changing rapidly in the UK life sector. Insurance companies are becoming internationalised, for life as well as general insurance business. The ability to offer a range of financial services is now a common ambition among financial institutions, and banks in particular are keen to get into the act through buying established life companies.

For every life company up for sale, there is a host of institutions, UK and overseas, willing to put in bids.

When the U.S. insurance holding company Marsh, McLennan put its UK insurance subsidiary Crusader Insurance (mainly a life company with a

small non-life operation) up for sale three years ago, around 80 institutions made offers.

Underlying conditions in the UK life market have been very favourable during the past few years. Growth in new life and pension sales have been buoyant. The industry is confidently predicting that the loss of business following the ending of life insurance premium relief is just a temporary setback.

The Market, including traditional companies, is confident that linked-life business will remain a growth sector for the rest of the century

Business results for last year, published yesterday by life company associations, showed that linked life sales were marginally down despite the loss of the assurance premium relief. The market, including traditional life companies, is confident that linked-life business will remain a growth sector for the rest of the century.

In these circumstances, conditions look good for UK life companies in general and for linked-life companies in particular. Lloyd's Life, established in 1971, is essentially a linked-life company that has expanded rapidly in the past few years, having recovered well from early problems.

Lloyd's Life has made a major impact on the offshore life market, through its life of Man subsidiary, aiming at the growing expatriate market. Offshore business recovered remarkably quickly from the setback imposed by revenue action against currency funds.

The returns to its shareholders — held as investments in members' premium trust funds — have been good. A £1 nominal share was valued at £11.50 at the end of last year. So why is Lloyd's selling a successful operation?

The reasons relate solely to the way in which Lloyd's operates according to Mr Peter Miller, Lloyd's chairman. The company's success has imposed problems for trust funds, which cannot hold more than 1% per cent of their funds in a single asset.

Also, existing shareholders had made it plain to Lloyd's Life that no further capital would be forthcoming. So far, the company has managed to finance expansion internally, but any move into wider fields, such as financial services, would need substantial injections of capital.

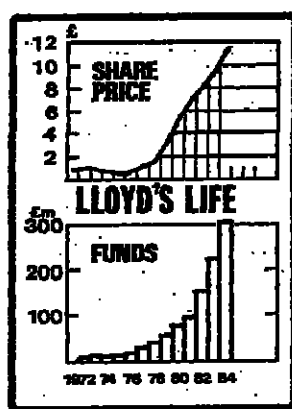
Lloyd's Life's unusual share structure was devised to permit Lloyd's members to become involved in long-term insurance business indirectly. Its constitution prevents members from direct participation in such long-term business.

Finally, the present setup, with shares in Lloyd's Life held by members and the Corporation's special A share with powers of veto, were leading to conflicts of interest. An example, Mr Miller pointed out, was the move into the U.S. life market.

Mr Miller emphasised that the move to sell Lloyd's Life did not mean as part of general divestment policy, nor because the shareholders needed the money. The sale's timing, in his view, was fortuitous.

Nevertheless, the Corporation and its banking advisers are looking for a good reason. Life companies in the past few years, with far less growth history or prospects, have been sold for substantial premiums over net actuarial worth, simply because the market for such companies has been so strong.

For example, Cannon



Assurance was sold to the U.S. life company Lincoln National for £40m, while the sale of Providence Capital is expected to raise more than this figure. Both these companies are far smaller than Lloyd's Life.

To ensure the maximum price, the Corporation wants to sell the highest bidder, in preference to a private one-for-one sale, such as Cannon's, or a public flotation, as in Abbey Life's case. Morgan Grenfell has sent a circular to about 100 institutions and is willing to accept offers from others.

The company will not go to the highest initial offer. The ultimate buyer must be acceptable to the Corporation and give certain guarantees regarding the future of the company, its policyholders and staff.

The intention is to draw a short list of six potential buyers. These will be provided with an independent actuarial valuation of the company on the basis of which a bid can be submitted. The current share valuation is made on very conservative lines by the actuaries.

Now that it has made the initial sale announcement, Lloyd's intends to make all future dealings concerning Lloyd's Life confidential.

British Land's hopes dimmed as Stylo camp builds up stake

BY ALEXANDER NICOLL

British Land's chances of securing a substantial stake in Stylo, the shoe retailer, dimmed yesterday when the 21st family, which controls Stylo, and Town Centre Securities, of which Mr Arnold Ziff is chairman, bought more Stylo shares.

Mr Ziff, Stylo's chairman, said there had been fairly substantial buying yesterday in addition to the 860,000 shares which have already been disclosed. Most of the transactions so far disclosed have been by Town Centre Securities, at prices up to 18p.

The Stylo camp is believed to have amassed more than 2m shares in its attempt to block a takeover bid for the company. Stylo's share price is 18p.

Which Land is offering. British Land's offer is conditional on 8m shares being tendered. If the tender falls because the total is less than that, Stylo's share price is expected to fall sharply.

Last year, a bid by Harris Queensway commanded over 11m shares, but failed because of Stylo's two-tier voting structure. The share price then fell as low as 88p.

The maximum 9,02m shares being sought by British Land, in return for its own shares or cash, would give it a bare majority of the equity but only 29.9 per cent voting control.

Ziff family "management shares" have 16 times the voting power of ordinary shares.

A close count seems in prospect when the tender closes at 3.00 pm today.

Leaderflush doors boost Trent profit to £259,000

Demand for Trent Holdings' Leaderflush security, fire resistant doors and doorsets continues at record levels with pre-tax profits for the half-year up from £195,018 to £298,977.

The interim dividend is increased 20 per cent to 0.42p net. Last year's final was 0.525p when pre-tax profits reached £512,171.

Stated earnings per 10p share declined from 2.50p to 2.47p after a higher tax charge of £80,500 (£52,500).

The result was achieved on sales of £1.2m higher, £2.5m for the six months ended September 30 1984. Some of the increase came from the inclusion of Parker Winder and Aichach, architectural ironmongery, door and security fittings merchant, which was acquired in October 1983.

Pre-tax profits were struck after interest payable of £11,624 (£14,688).

Mr Geoffrey Simon, chairman,

says production for its goods has been increased in accord with demand.

The level of business being conducted by Parker Winder and Aichach is rising steadily, although starting its current weakness is having some effect on margins, the directors expect the results for the full year to demonstrate further substantial growth in group business.

The industrial development at Newbury, Berks, should be completed in the spring.

Part of the company's property at Trowell has been sold. It is expected that the balance will be sold within the next two months. The total sum expected to be received from the two sales is £150,000.

The figures principally combine the results of Leaderflush doors and Parker Winder and Aichach. Leaderflush has achieved a record level of first-half profits and sales.

BOARD MEETINGS

TODAY	FUTURE DATES
Interiors: Fashion and General Investment, Gold Fields of South Africa, Howard Shuttering, Industrial Finance and Investment, M. L. Holdings, REA, Reardon Smith, Unimex.	Tottenham Hotspur Feb 5
Finals: Blumel Brothers, English and New York Trust, Rowland Gault, Newman Tonks.	Burnham Feb 10
	Cruxton Lodge and Knight Feb 11
	First Scottish American Trust Feb 26
	Fleming Mercantile Invest. Trust Mar 5
	Investing Capital Trust Mar 5
	Laid Properties Mar 16
	Newmarkets Mar 11

Company Notices

CAISSE NATIONALE DES TELECOMMUNICATIONS

U.S.\$2,000,000 8% 1971-1985

The redemption of U.S.\$2,000,000 due on March 1, 1985 has been paid by the company. The balance of U.S.\$1,600,000 has been paid by the company on January 1, 1985 in the presence of a notary public.

The balance of U.S.\$1,600,000 has been paid by the company on January 1, 1985 in the presence of a notary public.

BONDS DRAWN:

Nos. 1823/1827 inclusive when taking interest payments.

OUTSTANDING AMOUNT AFTER MARCH 1985:

Bonds will be redeemable at par on March 1, 1985 with coupons attached.

STANDARD DRAWINGS:

01.22.78: Nos. 4294-4312 inclusive (19 bonds)
01.22.79: Nos. 4313-4331 inclusive (19 bonds)
01.22.80: Nos. 4332-4350 inclusive (19 bonds)
01.22.81: Nos. 4351-4369 inclusive (19 bonds)
01.22.82: Nos. 4370-4388 inclusive (19 bonds)
01.22.83: Nos. 4389-4407 inclusive (19 bonds)
01.22.84: Nos. 4408-4426 inclusive (19 bonds)
01.22.85: Nos. 4427-4445 inclusive (19 bonds)
01.22.86: Nos. 4446-4464 inclusive (19 bonds)
01.22.87: Nos. 4465-4483 inclusive (19 bonds)
01.22.88: Nos. 4484-4502 inclusive (19 bonds)
01.22.89: Nos. 4503-4521 inclusive (19 bonds)
01.22.90: Nos. 4522-4540 inclusive (19 bonds)
01.22.91: Nos. 4541-4559 inclusive (19 bonds)
01.22.92: Nos. 4560-4578 inclusive (19 bonds)
01.22.93: Nos. 4579-4597 inclusive (19 bonds)
01.22.94: Nos. 4598-4616 inclusive (19 bonds)
01.22.95: Nos. 4617-4635 inclusive (19 bonds)
01.22.96: Nos. 4636-4654 inclusive (19 bonds)
01.22.97: Nos. 4655-4673 inclusive (19 bonds)
01.22.98: Nos. 4674-4692 inclusive (19 bonds)
01.22.99: Nos. 4693-4711 inclusive (19 bonds)
01.22.00: Nos. 4712-4730 inclusive (19 bonds)
01.22.01: Nos. 4731-4749 inclusive (19 bonds)
01.22.02: Nos. 4750-4768 inclusive (19 bonds)
01.22.03: Nos. 4769-4787 inclusive (19 bonds)
01.22.04: Nos. 4788-4806 inclusive (19 bonds)
01.22.05: Nos. 4807-4825 inclusive (19 bonds)
01.22.06: Nos. 4826-4844 inclusive (19 bonds)
01.22.07: Nos. 4845-4863 inclusive (19 bonds)
01.22.08: Nos. 4864-4882 inclusive (19 bonds)
01.22.09: Nos. 4883-4901 inclusive (19 bonds)
01.22.10: Nos. 4902-4920 inclusive (19 bonds)
01.22.11: Nos. 4921-4939 inclusive (19 bonds)
01.22.12: Nos. 4940-4958 inclusive (19 bonds)
01.22.13: Nos. 4959-4977 inclusive (19 bonds)
01.22.14: Nos. 4978-4996 inclusive (19 bonds)
01.22.15: Nos. 4997-5015 inclusive (19 bonds)
01.22.16: Nos. 5016-5034 inclusive (19 bonds)
01.22.17: Nos. 5035-5053 inclusive (19 bonds)
01.22.18: Nos. 5054-5072 inclusive (19 bonds)
01.22.19: Nos. 5073-5091 inclusive (19 bonds)
01.22.20: Nos. 5092-5110 inclusive (19 bonds)
01.22.21: Nos. 5111-5129 inclusive (19 bonds)
01.22.22: Nos. 5130-5148 inclusive (19 bonds)
01.22.23: Nos. 5149-5167 inclusive (19 bonds)
01.22.24: Nos. 5168-5186 inclusive (19 bonds)
01.22.25: Nos. 5187-5205 inclusive (19 bonds)
01.22.26: Nos. 5206-5224 inclusive (19 bonds)
01.22.27: Nos. 5225-5243 inclusive (19 bonds)
01.22.28: Nos. 5244-5262 inclusive (19 bonds)
01.22.29: Nos. 5263-5281 inclusive (19 bonds)
01.22.30: Nos. 5282-5300 inclusive (19 bonds)
01.22.31: Nos. 5301-5319 inclusive (19 bonds)
01.22.32: Nos. 5320-5338 inclusive (19 bonds)
01.22.33: Nos. 5339-5357 inclusive (19 bonds)
01.22.34: Nos. 5358-5376 inclusive (19 bonds)
01.22.35: Nos. 5377-5395 inclusive (19 bonds)
01.22.36: Nos. 5396-5414 inclusive (19 bonds)
01.22.37: Nos. 5415-5433 inclusive (19 bonds)
01.22.38: Nos. 5434-5452 inclusive (19 bonds)
01.22.39: Nos. 5453-5471 inclusive (19 bonds)
01.22.40: Nos. 5472-5490 inclusive (19 bonds)
01.22.41: Nos. 5491-5509 inclusive (19 bonds)
01.22.42: Nos. 5510-5528 inclusive (19 bonds)
01.22.43: Nos. 5529-5547 inclusive (19 bonds)
01.22.44: Nos. 5548-5566 inclusive (19 bonds)
01.22.45: Nos. 5567-5585 inclusive (19 bonds)
01.22.46: Nos. 5586-5604 inclusive (19 bonds)
01.22.47: Nos. 5605-5623 inclusive (19 bonds)
01.22.48: Nos. 5624-5642 inclusive (19 bonds)
01.22.49: Nos. 5643-5661 inclusive (19 bonds)
01.22.50: Nos. 5662-5680 inclusive (19 bonds)
01.22.51: Nos. 5681-5699 inclusive (19 bonds)
01.22.52: Nos. 5700-5718 inclusive (19 bonds)
01.22.53: Nos. 5719-5737 inclusive (19 bonds)
01.22.54: Nos. 5738-5756 inclusive (19 bonds)
01.22.55: Nos. 5757-5775 inclusive (19 bonds)
01.22.56: Nos. 5776-5794 inclusive (19 bonds)
01.22.57: Nos. 5795-5813 inclusive (19 bonds)
01.22.58: Nos. 5814-5832 inclusive (19 bonds)
01.22.59: Nos. 5833-5851 inclusive (19 bonds)
01.22.60: Nos. 5852-5870 inclusive (19 bonds)
01.22.61: Nos. 5871-5889 inclusive (19 bonds)
01.22.62: Nos. 5890-5908 inclusive (19 bonds)
01.22.63: Nos. 5909-5927 inclusive (19 bonds)
01.22.64: Nos. 5928-5946 inclusive (19 bonds)
01.22.65: Nos. 5947-5965 inclusive (19 bonds)
01.22.66: Nos. 5966-5984 inclusive (19 bonds)
01.22.67: Nos. 5985-6003 inclusive (19 bonds)
01.22.68: Nos. 6004-6022 inclusive (19 bonds)
01.22.69: Nos. 6023-6041 inclusive (19 bonds)
01.22.70: Nos. 6042-6060 inclusive (19 bonds)
01.22.71: Nos. 6061-6079 inclusive (19 bonds)
01.22.72: Nos. 6080-6098 inclusive (19 bonds)
01.22.73: Nos. 6099-6117 inclusive (19 bonds)
01.22.74: Nos. 6118-6136 inclusive (19 bonds)
01.22.75: Nos. 6137-6155 inclusive (19 bonds)
01.22.76: Nos. 6156-6174 inclusive (19 bonds)
01.22.77: Nos. 6175-6193 inclusive (19 bonds)
01.22.78: Nos. 6194-6212 inclusive (19 bonds)
01.22.79: Nos. 6213-6231 inclusive (19 bonds)
01.22.80: Nos. 6232-6250 inclusive (19 bonds)
01.22.81: Nos. 6251-6269 inclusive (19 bonds)
01.22.82: Nos. 6270-6288 inclusive (19 bonds)
01.22.83: Nos. 6289-6307 inclusive (19 bonds)
01.22.84: Nos. 6308-6326 inclusive (19 bonds)
01.22.85: Nos. 6327-6345 inclusive (19 bonds)
01.22.86: Nos. 6346-6364 inclusive (19 bonds)
01.22.87: Nos. 6365-6383 inclusive (19 bonds)
01.22.88: Nos. 6384-6402 inclusive (19 bonds)
01.22.89: Nos. 6403-6421 inclusive (19 bonds)
01.22.90: Nos. 6422-6440 inclusive (19 bonds)
01.22.91: Nos. 6441-6459 inclusive (19 bonds)
01.22.92: Nos. 6460-6478 inclusive (19 bonds)
01.22.93: Nos. 6479-6497 inclusive (19 bonds)
01.22.94: Nos. 6498-6516 inclusive (19 bonds)
01.22.95: Nos. 6517-6535 inclusive (19 bonds)
01.22.96: Nos. 6536-6554 inclusive (19 bonds)
01.22.97: Nos. 6555-6573 inclusive (19 bonds)
01.22.98: Nos. 6574-6592 inclusive (19 bonds)
01.22.99: Nos. 6593-6611 inclusive (19 bonds)
01.22.00: Nos. 6612-6630 inclusive (19 bonds)
01.22.01: Nos. 6631-6649 inclusive (19 bonds)
01.22.02: Nos. 6650-6668 inclusive (19 bonds)
01.22.03: Nos. 6669-6687 inclusive (19 bonds)
01.22.04: Nos. 6688-6706 inclusive (19 bonds)
01.22.05: Nos. 6707-6725 inclusive (19 bonds)
01.22.06: Nos. 6726-6744 inclusive (19 bonds)
01.22.07: Nos. 6745-6763 inclusive (19 bonds)
01.22.08: Nos. 6764-6782 inclusive (19 bonds)
01.22.09: Nos. 6783-6801 inclusive (19 bonds)
01.22.10: Nos. 6802-6820 inclusive (19 bonds)
01.22.11: Nos. 6821-6839 inclusive (19 bonds)
01.22.12: Nos. 6840-6858 inclusive (19 bonds)
01.22.13: Nos. 6859-6877 inclusive (19 bonds)
01.22.14: Nos. 6878-6896 inclusive (19 bonds)
01.22.15: Nos. 6897-6915 inclusive (19 bonds)
01.22.16: Nos. 6916-6934 inclusive (19 bonds)
01.22.17: Nos. 6935-6953 inclusive (19 bonds)
01.22.18: Nos. 6954-6972 inclusive (19 bonds)
01.22.19: Nos. 6973-6991 inclusive (19 bonds)
01.22.20: Nos. 6992-7010 inclusive (19 bonds)
01.22.21: Nos. 7011-7029 inclusive (19 bonds)
01.22.22: Nos. 7030-7048 inclusive (19 bonds)
01.22.23: Nos. 7049-7067 inclusive (19 bonds)
01.22.24: Nos. 7068-7086 inclusive (19 bonds)
01.22.25: Nos. 7087-7105 inclusive (19 bonds)
01.22.26: Nos. 7106-7124 inclusive (19 bonds)
01.22.27: Nos. 7125-7143 inclusive (19 bonds)
01.22.28: Nos. 7144-7162 inclusive (19 bonds)
01.22.29: Nos. 7163-7181 inclusive (19 bonds)
01.22.30: Nos. 7182-7200 inclusive (19 bonds)
01.22.31: Nos. 7201-7219 inclusive (19 bonds)
01.22.32: Nos. 7220-7238 inclusive (19 bonds)
01.22.33: Nos. 7239-7257 inclusive (19 bonds)
01.22.34: Nos. 7258-7276 inclusive (19 bonds)
01.22.35: Nos. 7277-7295 inclusive (19 bonds)
01.22.36: Nos. 7296-7314 inclusive (19 bonds)
01.22.37: Nos. 7315-7333 inclusive (19 bonds)
01.22.38: Nos. 7334-7352 inclusive (19 bonds)
01.22.39: Nos. 7353-7371 inclusive (19 bonds)
01.22.40: Nos. 7372-7390 inclusive (19 bonds)
01.22.41: Nos. 7391-7409 inclusive (19 bonds)
01.22.42: Nos. 7410-7428 inclusive (19 bonds)
01.22.43: Nos. 7429-7447 inclusive (19 bonds)
01.22.44: Nos. 7448-7466 inclusive (19 bonds)
01.22.45: Nos. 7467-7485 inclusive (19 bonds)
01.22.46: Nos. 7486-7504 inclusive (19 bonds)
01.22.47: Nos. 7505-7523 inclusive (19 bonds)
01.22.48: Nos. 7524-7542 inclusive (19 bonds)
01.22.49: Nos. 7543-7561 inclusive (19 bonds)
01.22.50: Nos. 7562-7580 inclusive (19 bonds)
01.22.51: Nos. 7581-7599 inclusive (19 bonds)
01.22.52: Nos. 7600-7618 inclusive (19 bonds)
01.22.53: Nos. 7619-7637 inclusive (19 bonds)
01.22.54: Nos. 7638-7656 inclusive (19 bonds)
01.22.55: Nos. 7657-7675 inclusive (19 bonds)
01.22.56: Nos. 7676-7694 inclusive (19 bonds)
01.22.57: Nos. 7695-7713 inclusive (19 bonds)
01.22.58: Nos. 7714-7732 inclusive (19 bonds)
01.22.59: Nos. 7733-7751 inclusive (19 bonds)
01.22.60: Nos. 7752-7770 inclusive (19 bonds)
01.22.61: Nos. 7771-7789 inclusive (19 bonds)
01.22.62: Nos. 7790-7808 inclusive (19 bonds)
01.22.63: Nos. 7809-7827 inclusive (19 bonds)
01.22.64: Nos. 7828-7846 inclusive (19 bonds)
01.22.65: Nos. 7847-7865 inclusive (19 bonds)
01.22.66: Nos. 7866-7884 inclusive (19 bonds)
01.22.67: Nos. 7885-7903 inclusive (19 bonds)
01.22.68: Nos. 7904-7922 inclusive (19 bonds)
01.22.69: Nos. 7923-7941 inclusive (19 bonds)
01.22.70: Nos. 7942-7960 inclusive (19 bonds)
01.22.71: Nos. 7961-7979 inclusive (19 bonds)
01.22.72: Nos. 7980-7998 inclusive (19 bonds)
01.22.73: Nos. 8000-8018 inclusive (19 bonds)
01.22.74: Nos. 8019-8037 inclusive (19 bonds)
01.22.75: Nos. 8038-8056 inclusive (19 bonds)
01.22.76: Nos. 8057-8075 inclusive (19 bonds)
01.22.77: Nos. 8076-8094 inclusive (19 bonds)
01.22.78: Nos. 8095-8113 inclusive (19 bonds)
01.22.79: Nos. 8114-8132 inclusive (19 bonds)
01.22.80: Nos. 8133-8151 inclusive (19 bonds)
01.22.81: Nos. 8152-8170 inclusive (19 bonds)
01.22.82: Nos. 8171-8189 inclusive (19 bonds)
01.22.83: Nos. 8190-8208 inclusive (19 bonds)
01.22.84: Nos. 8209-8227 inclusive (19 bonds)
01.22.85: Nos. 8228-8246 inclusive (19 bonds)
01.22.86: Nos. 8247-8265 inclusive (19 bonds)
01.22.87: Nos. 8266-8284 inclusive (19 bonds)
01.22.88: Nos. 8285-8303 inclusive (19 bonds)
01.22.89: Nos. 8304-8322 inclusive (19 bonds)
01.22.90: Nos. 8323-8341 inclusive (19 bonds)
01.22.91: Nos. 8342-8360 inclusive (19 bonds)
01.22.92: Nos. 8361-8379 inclusive (19 bonds)
01.22.93: Nos. 8380-8398 inclusive (19 bonds)
01.22.94: Nos. 8399-8417 inclusive (19 bonds)
01.22.95: Nos. 8418-8436 inclusive (19 bonds)
01.22.96: Nos. 8437-8455 inclusive (19 bonds)
01.22.97: Nos. 8456-8474 inclusive (19 bonds)
01.22.98: Nos. 8475-8493 inclusive (19 bonds)
01.22.99: Nos. 8494-8512 inclusive (19 bonds)
01.22.00: Nos. 8513-8531 inclusive (19 bonds)
01.22.01: Nos. 8532-8550 inclusive (19 bonds)
01.22.02: Nos. 8551-8569 inclusive (19 bonds)
01.22.03: Nos. 8570-8588 inclusive (19 bonds)
01.22.04: Nos. 8589-8607 inclusive (19 bonds)
01.22.05: Nos. 8608-8626 inclusive (19 bonds)
01.22.06: Nos. 8627-8645 inclusive (19 bonds)
01.22.07: Nos. 8646-8664 inclusive (19 bonds)
01.22.08: Nos. 8665-8683 inclusive (19 bonds)
01.22.09: Nos. 8684-8702 inclusive (19 bonds)
01.22.10: Nos. 8703-8721 inclusive (19 bonds)
01.22.11: Nos. 8722-8740 inclusive (19 bonds)
01.22.12: Nos. 8741-8759 inclusive (19 bonds)
01.22.13: Nos. 8760-8778 inclusive (19 bonds)
01.22.14: Nos. 8779-8797 inclusive (19 bonds)
01.22.15: Nos. 8798-8816 inclusive (19 bonds)
01.22.16: Nos. 8817-8835 inclusive (19 bonds)
01.22.17: Nos. 8836-8854 inclusive (19 bonds)
01.22.18: Nos. 8855-8873 inclusive (19 bonds)
01.22.19: Nos. 8874-8892 inclusive (19 bonds)
01.22.20: Nos. 8893-8911 inclusive (19 bonds)
01.22.21: Nos. 8912-8930 inclusive (19 bonds)
01.22.22: Nos. 8931-8949 inclusive (19 bonds)
01.22.23: Nos. 8950-8968 inclusive (19 bonds)
01.22.24: Nos. 8969-8987 inclusive (19 bonds)
01.22.25: Nos. 8988-9006 inclusive (19 bonds)
01.22.26: Nos. 9007-9025 inclusive (19 bonds)
01.22.27: Nos. 9026-9044 inclusive (19 bonds)
01.22.28: Nos. 9045-9063 inclusive (19 bonds)
01.22.29: Nos. 9064-9082 inclusive (19 bonds)
01.22.30: Nos. 9083-9101 inclusive (19 bonds)
01.22.31: Nos. 9102-9120 inclusive (19 bonds)
01.22.32: Nos. 9121-9139 inclusive (19 bonds)
01.22.33: Nos. 9140-9158 inclusive (19 bonds)
01.22.34: Nos. 9159-9177 inclusive (19 bonds)
01.22.35: Nos. 9178-9196 inclusive (19 bonds)
01.22.36: Nos. 9197-9215 inclusive (19 bonds)
01.22.37: Nos. 9216-9234 inclusive (19 bonds)
01.22.38: Nos. 9235-9253 inclusive (19 bonds)
01.22.39: Nos. 9254-9272 inclusive (19 bonds)
01.22.40: Nos. 9273-9291 inclusive (19 bonds)
01.22.41: Nos. 9292-9310 inclusive (19 bonds)
01.22.42: Nos. 9311-9329 inclusive (19 bonds)
01.22.43: Nos. 9330-9348 inclusive (19 bonds)
01.22.44: Nos. 9349-9367 inclusive (19 bonds)
01.22.45: Nos. 9368-9386 inclusive (19 bonds)
01.22.46: Nos. 9387-9405 inclusive (19 bonds)
01.22.47: Nos. 9406-9424 inclusive (19 bonds)
01.22.48: Nos. 9425-9443 inclusive (19 bonds)
01.22.49: Nos. 9444-9462 inclusive (19 bonds)
01.22.50: Nos. 9463-9481 inclusive (19 bonds)
01.22.51: Nos. 9482-9500 inclusive (19 bonds)
01.22.52: Nos. 9501-9519 inclusive (19 bonds)
01.22.53: Nos. 9520-9538 inclusive (19 bonds)
01.22.54: Nos. 9539-9557 inclusive (19 bonds)
01.22.55: Nos. 9558-9576 inclusive (19 bonds)
01.22.56: Nos. 9577-9595 inclusive (19 bonds)
01.22.57: Nos. 9596-9614 inclusive (19 bonds)
01.22.58: Nos. 9615-9633 inclusive (19 bonds)
01.22.59: Nos. 9634-9652 inclusive (19 bonds)
01.22.60: Nos. 9653-9671 inclusive (19 bonds)
01.22.61: Nos. 9672-9690 inclusive (19 bonds)
01.22.62: Nos. 9691-9709 inclusive (19 bonds)
01.22.63: Nos. 9710-9728 inclusive (19 bonds)
01.22.64: Nos. 9729-9747 inclusive (19 bonds)
01.22.65: Nos. 9748-9766 inclusive (19 bonds)
01.22.66: Nos. 9767-9785 inclusive (19 bonds)
01.22.67: Nos. 9786-9804 inclusive (19 bonds)
01.22.68: Nos. 9805-9823 inclusive (19 bonds)
01.22.69: Nos. 9824-9842 inclusive (19 bonds)
01.22.70: Nos. 9843-9861 inclusive (19 bonds)
01.22.71: Nos. 9862-9880 inclusive (19 bonds)
01.22.72: Nos. 9881-9899 inclusive (19 bonds)
01.22.73: Nos. 9900-9918 inclusive (19 bonds)
01.22.74: Nos. 9919-9937 inclusive (19 bonds)
01.22.75: Nos. 9938-9956 inclusive (19 bonds)
01.22.76: Nos. 9957-9975 inclusive (19 bonds)
01.22.77: Nos. 9976-9994 inclusive (19 bonds)
01.22.78: Nos. 9995-10000 inclusive (6 bonds)

The Fiscal Agent
BANQUE PARIBAS
(LUXEMBOURG S.A.)

COMPAGNIE FINANCIERE ET INDUSTRIELLE DES AUTOMOBILES-CORROUTE 7% 1974/1985 -Loans of U.S. \$1,000,000

Bondholders of the above Bonds are informed that U.S.\$1,000,000 of the amount of U.S.\$1,000,000 were drawn on March 1, 1985 in the presence of a Notary Public for redemption on March 1, 1985.

The drawn Bonds will be returned to the company on March 12 and interest attached as from March 12, 1985.

NOT PREVIOUSLY REDEEMED Bonds will be returned to the company on March 12, 1985.

Amount outstanding: U.S.\$1,000,000

1973 to 6978 inclusive (19 bonds)
1979 to 1984 inclusive (6 bonds)
1971 to 1972 to 1973 to 1974 to 1975 to 1976 to 1977 to 1978 to 1979 to 1980 to 1981 to 1982 to 1983 to 1984 to 1985 to 1986 to 1987 to 1988 to 1989 to 1990 to 1991 to 1992 to 1993 to 1994 to 1995 to 1996 to 1997 to 1998 to 1999 to 2000 to 2001 to 2002 to 2003 to 2004 to 2005 to 2006 to 2007 to 2008 to 2009 to 2010 to 2011 to 2012 to 2013 to 2014 to 2015 to 2016 to 2017 to 2018 to 2019 to 2020 to 2021 to 2022 to 2023 to 2024 to 2025 to 2026 to 2027 to 2028 to 2029 to 2030 to 2031 to 2032 to 2033 to 2034 to 2035 to 2036 to 2037 to 2038 to 2039 to 2040 to 2041 to 2042 to 2043 to 2044 to 2045 to 2046 to 2047 to 2048 to 2049 to 2050 to 2051 to 2052 to 2053 to 2054 to 2055 to 2056 to 2057 to 2058 to 2059 to 2060 to 2061 to 2062 to 2063 to 2064 to 2065 to 2066 to 2067 to 2068 to 2069 to 2070 to 2071 to 2072 to 2073 to 2074 to 2075 to 2076 to 2077 to 2078 to 2079 to 2080 to 2081 to 2082 to 2083 to 2084 to 2085 to 2086 to 2087 to 2088 to 2089 to 2090 to 2091 to 2092 to 2093 to 2094 to 2095 to 2096 to 2097 to 2098 to 2099 to 2100 to 2101 to 2102 to 2103 to 2104 to 2105 to 2106 to 2107 to 2108 to 2109 to 2110 to 2111 to 2112 to 2113 to 2114 to 2115 to 2116 to 2117 to 2118 to 2119 to 2120 to 2121 to 2122 to 2123 to 2124 to 2125 to 2126 to 2127 to 2128 to 2129 to 2130 to 2131 to 2132 to 2133 to 2134 to 2135 to 2136 to 2137 to 2138 to 2139 to 2140 to 2141 to 2142 to 2143 to 2144 to 2145 to 2146 to 2147 to 2148 to 2149 to 2150 to 2151 to 2152 to 2153 to 2154 to 2155 to 2156 to 2157 to 2158 to 2159 to 2160 to 2161 to 2162 to 2163 to 2164 to 2165 to 2166 to 2167 to 2168 to 2169 to 2170 to 2171 to 2172 to 2173 to 2174 to 2175 to 2176 to 2177 to 2178 to 2179 to 2180 to 2181 to 2182 to 2183 to 2184 to 2185 to 2186 to 2187 to 2188 to 2189 to 2190 to 2191 to 2192 to 2193 to 2194 to 2195 to 2196 to 2197 to 2198 to 2199 to 2200 to 2201 to 2202 to 2203 to 2204 to 2205 to 2206 to 2207 to 2208 to 2209 to 2210 to 2211 to 2212 to 2213 to 2214 to 2215 to 2216 to 2217 to 2218 to 2219 to 2220 to 2221 to 2222 to 2223 to 2224 to 2225 to 2226 to 2227 to 2228 to 2229 to 2230 to 2231 to 2232 to 2233 to 2234 to 2235 to 2236 to 2237 to 2238 to 2239 to 2240 to 2241 to 2242 to 2243 to 2244 to 2245 to 2246 to 2247 to 2248 to 2249 to 2250 to 2251 to 2252 to 2253 to 2254 to 2255 to 2256 to 2257 to 2258 to 2259 to 2260 to 2261 to 2262 to 2263 to 2264 to 2265 to 2266 to 2267 to 2268 to 2269 to 2270 to 2271 to 2272 to 2273 to 2274 to 2275 to 2276 to 2277 to 2278 to 2279 to 2280 to 2281 to 2282 to 2283 to 2284 to 2285 to 2286 to 2287 to 2288 to 2289 to 2290 to 2291 to 2292 to 2293 to 2294 to 2295 to 2296 to 2297 to 2298 to 2299 to 2300 to 2301 to 2302 to 2303 to 2304 to 2305 to 2306 to 2307 to 2308 to 2309 to 2310 to 2311 to 2312 to 2313 to 2314 to 2315 to 2316 to 2317 to 2318 to 2319 to 2320 to 2321 to 2322 to 2323 to 2324 to 2325 to 2326 to 2327 to 2328 to 2329 to 2330 to 2331 to 2332 to 2333 to 2334 to 2335 to 2336 to 2337 to 2338 to 2339 to 2340 to 2341 to 2342 to 2343 to 2344 to 2345 to 2346 to 2347 to 2348 to 2349 to 2350 to 2351 to 2352 to 2353 to 2354 to 2355 to 2356 to 2357 to 2358 to 2359 to 2360 to 2361 to 2362 to 2363 to 2364 to 2365 to 2366 to 2367 to 2368 to 2369 to 2370 to 2371 to 2372 to 2373 to 2374 to 2375 to 2376 to 2377 to 2378 to 2379 to 2380 to 2381 to 2382 to 2383 to 2384 to 2385 to 2386 to 2387 to 2388 to 2389 to 2390 to 2391 to 2392 to 2393 to 2394 to 2395 to 2396 to 2397 to 2398 to 2399 to

TOWNHILL SECURITY GROUP plc

(Incorporated in England under the Companies Acts 1948 to 1981)
(Registered No. 1861615)
OFFER FOR SALE

HARVARD SECURITIES LIMITED

(Licensed Dealer in Securities)

6,380,000 Ordinary Shares of 1p each at 23p per share payable in full on application

The application list for the new Ordinary Shares will open at 10 a.m. on Tuesday, 5th February, 1985 and will close at 3 p.m. on Thursday, 14th February, 1985.

Townhill Security Group PLC develop and manufacture high security doors and related systems for installation in residential properties with particular emphasis on sales to the local authority and private housing markets. In addition, the company own several freehold properties in the South of England being developed for residential and commercial use.

No application has been or is proposed to be made for any part of the Company's share capital to be admitted to the Official List of the Stock Exchange or to the Unlisted Securities Market. Harvard Securities Limited has agreed to make a market in the Ordinary Shares of the Company. Application forms and copies of the Prospectus dated 31st January 1985 upon the terms of which alone applications can be made can be obtained from:

Harvard Securities Limited
Harvard House
42-44 Dohen Street, London SE1 0UQ
01-228 2661

BASE LENDING RATES

A.B.N. Bank	14 1/2 %	Hill Samuel	14 1/2 %
Allied Irish Bank	14 1/2 %	C. Hoare & Co.	14 1/2 %
Henry Ansbacher	14 1/2 %	Hong Kong & Shanghai	14 1/2 %
Amro Bank	14 1/2 %	Johnson Matthey Bkrs.	14 1/2 %
Armo Trust Ltd.	14 1/2 %	Knowles & Co. Ltd.	14 1/2 %
Associates Cap. Corp.	14 1/2 %	Leys Bank	14 1/2 %
Banco de Bilbao	14 1/2 %	Edward Manson & Co.	14 1/2 %
Bank of America	14 1/2 %	Meghraj & Sons Ltd.	14 1/2 %
Bank of Canada	14 1/2 %	Midland Bank	14 1/2 %
Bank of Ireland	14 1/2 %	Morgan Grenfell	14 1/2 %
Bank of Cyprus	14 1/2 %	Mount Credit Corp. Ltd.	14 1/2 %
Bank of India	14 1/2 %	National Bk. of Kuwait	14 1/2 %
Bank of Scotland	14 1/2 %	National Girobank	14 1/2 %
Bank of South Africa	14 1/2 %	National Westminster	14 1/2 %
Barclays Bank	14 1/2 %	Norwich Gen. Ltd.	14 1/2 %
Beneficial Trust	14 1/2 %	People's Tr. & Sv. Ltd.	14 1/2 %
Brit. Bank of Ind. East	14 1/2 %	Provincial Tr. Ltd.	14 1/2 %
Brown Shipley	14 1/2 %	R. Raphael & Sons	14 1/2 %
CL Bank Nederland	14 1/2 %	P. S. Refson	14 1/2 %
Canada Farn't Trust	14 1/2 %	Roxburgh Guarantees	14 1/2 %
Cayzer Ltd.	14 1/2 %	Royal Bank of Scotland	14 1/2 %
Cedar Holdings	14 1/2 %	Royal Trust Co. Canada	14 1/2 %
Charterhouse Japan	14 1/2 %	J. Henry Schroder Wagg	14 1/2 %
Choulatons	14 1/2 %	Standard Chartered	14 1/2 %
Citibank NA	14 1/2 %	Trade Dev. Bank	14 1/2 %
Citibank Savings	14 1/2 %	TCS	14 1/2 %
Clydesdale Bank	14 1/2 %	Trustee Savings Bank	14 1/2 %
C. E. Coates & Co. Ltd.	14 1/2 %	United Bank of Kuwait	14 1/2 %
Comm. Bk. N. East	14 1/2 %	United Mizrahi Bank	14 1/2 %
Consolidated Credits	14 1/2 %	Westpac Banking Corp.	14 1/2 %
Co-operative Bank	14 1/2 %	Whiteaway Ltd.	14 1/2 %
The Cyprus Popular Bk.	14 1/2 %	Williams & Glyn's	14 1/2 %
Dunbar & Co. Ltd.	14 1/2 %	Wintrust Sec. Ltd.	14 1/2 %
Duncan Lawrie	14 1/2 %	Yorkshire Bank	14 1/2 %
E. T. Trust	14 1/2 %	Members of the Accepting Houses	
Exeter Trust Ltd.	14 1/2 %	7-day deposits 11%, 1 month	
First Nat. Fin. Corp.	14 1/2 %	11.75%, fixed rate 12 months	12.50%
First Nat. Secs. Ltd.	14 1/2 %	11.75%, fixed rate 12 months	12.50%
Robert Fleming & Co.	14 1/2 %	7-day deposits on sums of under	
Robert Fraser & Ptns.	14 1/2 %	£10,000 11%, £10,000 to £50,000	12%
Grindlays Bank	14 1/2 %	12%, £50,000 and over 12%	
Guinness Mahon	14 1/2 %	Call deposits £1,000 and over 11%	
Hambros Bank	14 1/2 %	21-day deposits over £1,000 12 1/2 %	
Hartley & Gen. Trust	14 1/2 %	12 1/2 %	
		Demand deposits 11%	
		See Provincial Trust Ltd.	

UK COMPANIES

J. Dyson profit growth midterm

FIRST HALF to September 30, 1984 figures from J. & J. Dyson show progress has been made, with profit up from £22,000 to £108,000 on a turnover of £19,220, against £19,430. The interim dividend is again 3p net.

There has been further rationalisation of production facilities in the refractories division. It has been an expensive, yet inevitable procedure, but the company now has a division contributing to profitability, the directors state.

Revenues from the working of the Scottish minerals has been affected by the miners' strike. Fortunately, this only delays contribution, it does not eliminate it.

In the general division the companies continue to operate profitably with the exception of

Sandygate Motor Services, which is experiencing extremely poor trading conditions. Its loss is small, but is being carefully monitored and early return to profitability is expected.

As an extraordinary item there is the £474,000 profit on the disposal of shares in H. Newbury & Son (Builders) to Bovis Homes, less £360,000 attributable to closure costs. Earnings for the half year are 1.15p (0.59p) per share.

As regards the outlook for 1985-86, the directors say that this appears to be better than for some time, given a reasonable economic climate. For the whole of last year the group made a profit of nearly £1m and paid a dividend of 4p.

Mr Jack Laming is to retire from the board on March 31.

Wiggins cuts its losses

DESPITE INTEREST charges increasing from £504,000 to £725,000, pre-tax losses at Wiggins Group were reduced from £182,000 to £101,000 in the six months to September 30, 1984. No dividend is expected to be declared in respect of the year to March 31, 1985—last year there was a stable interim payment of 1.25p.

Turnover of this holding company—it is a contractor and developer of estates—improved from £28.89m to £32.15m, and operating profits came out at £24,000 compared with £20,000. This was after administration expenses of £3.81m (£2.12m).

There was an exceptional debit of £550,000 last time.

The directors say the house-building and motor divisions have traded profitably in the first half, although margins are under pressure. They say that these operations will contribute positively in the second half.

As anticipated in last year's report, some commercial properties have been sold to reduce borrowings. The proceeds of £182,000 to £101,000 in the six months to September 30, 1984. No dividend is expected to be declared in respect of the year to March 31, 1985—last year there was a stable interim payment of 1.25p.

Results of the property division for the full year will also be dependent on the timing of transactions now under negotiation. Nevertheless, the group will continue to attract a heavy charge for interest at current rates.

In contracting, Wiggins Construct (Eastern) has maintained turnover and profitability and its order book is encouraging. Overall, however, public expenditure cuts and fierce price competition have affected the division's operations, so that further re-organisation is being implemented to stem losses while margins remain insufficient to cover overheads.

Orchard raising £1.3m

Orchard Food Holdings, a privately-owned frozen and chilled food retail chain, is raising £1.3m from City institutions.

Lloyds Bank International has pre-placed 22.5 per cent of the equity of the company, which is planning a stock market flotation within two years.

The fund-raising follows the appointment as chief executive of Mr Brian Baylis, former chief executive of Cordon Bleu, the

freezer centre chain owned by Argyl Group.

The company, which is based in Chesham and runs a chain of 57 shops in South-East England, in 1984 made pre-tax profits of £500,000 on turnover of £15m.

Orchard is controlled by co-founders Brian Baylis, chairman, and his brother Mr Paul Carr, managing director, who together hold 60 per cent of the equity.

APPOINTMENTS

Managing director for Baker Perkins

Mr Mike Smith will become managing director of BAKER PERKINS HOLDINGS on April 1. He succeeds Mr John Peake, who is currently chairman and managing director and will continue as chairman. Since 1980 Mr Smith has been chairman and managing director of Baker Perkins Limited, the largest subsidiary in the group. He has been a member of the Baker Perkins Holdings board since 1978.

NOLTON has appointed Mr Stuart Vidler managing director of its property division. He was formerly development director with the Deacon Group.

Mr Derek Robson has been appointed director (finance) of KIMPTON BROTHERS, food and chemical trading division of Croda International.

THE HOLLINGSWORTH GROUP has made the following management changes. Mr E. G. Smalley is appointed chairman of the Hollingsworth Group board. He is appointed chairman, Platt & Lowell (UK) Ltd. relinquishes his appointment as managing director. He will continue as chairman and managing director, Hollingsworth (UK). Mr J. Eke is appointed managing director, Platt & Lowell (UK) Ltd. remains managing director, Hollingsworth Service Company.

Mr John K. Hepburn has been appointed director (finance) of MORGAN STANLEY INC. New York based international investment banking company. He will be responsible for investment banking activities in the Nordic area. He joined the London office in 1978 and was promoted to vice president in 1980 and to principal in 1982.

Mr J. W. Davies has relinquished his appointment as deputy chairman of DAVIES & NEWMAN HOLDINGS. Mr David P. Herbert has been appointed in his place. Mr Herbert has also been appointed a director of DAVIES & NEWMAN HOLDINGS. He will continue to serve as a director of Davies & Newman Holdings.

Col Philip Howes is joining ITM (OFFSHORE) to head the Flexipart sales division with particular responsibility for defence and civil applications. Formerly, he was on the general staff at MoD, seconded from the Royal Air Force.

Mr Paddy Campbell has been appointed commercial director (designate) and company secretary of SPOTTISWODE BALANTYNE PRINTERS.

Mr Roy Childs has been appointed a director of the major corporate division in JARDINE

THE BRITISH LONGWALL MINING ASSOCIATION has

MINING NEWS

Inco back to profit in final quarter

CANADA'S Inco, the major nickel producer, has returned to profitability in the fourth quarter of 1984 after 13 consecutive quarterly losses.

Net earnings for the period amount to U.S.\$4.5m (£4m) which equals a loss of 2 cents per common share after allowance is made for preferred dividends.

The latest profit compares with a loss of \$1.0m in the previous three months and a loss of \$4.6m in the same period of 1983. It reduces the total loss for 1984 to \$7.7m, or \$1.02 per share, which compares with the 1983 total loss of \$24.2m.

Inco points out that the 1984 fourth quarter results had the benefit of pre-tax gains of \$10m from the retirement of long-term debt and the sale of Canadian and U.S. oil and gas properties.

The major factor in the past year's improvement, however, has been the significant reduction in metal production costs.

The company's average price received for primary nickel in the fourth quarter of 1984 was \$2.37 per pound compared with \$2.38 in the same period of 1983. Nickel sales in the latest quarter amounted to 36m lbs against 35m lbs, bringing the year's total to 366m lbs against 341m lbs in 1983.

Because of a shutdown at the Ontario division, Inco and less copper, precious metals and cobalt available for delivery to customers last year. Even so, sales of these products increased sharply, albeit at lower prices than in 1983.

Worsley alumina extension

A big gold mine is to be developed at Bodington, in Western Australia, as an extension of the Worsley alumina project, the state government said yesterday.

The mine, which was found almost by accident during exploration work for bauxite, is to cost A\$50m (£8.8m), and with annual output of up to 195,000 tonnes, will rank among the largest in Australia.

The partners in the Worsley joint venture are BHP, BHP Proprietary, Shell Company of Australia, Reynolds Australia Alumina and Kobe Alumina Associates.

Alcoa downturn depresses Western Mining by 24%

BY KENNETH MARSTON, MINING EDITOR

REDUCED EARNINGS from the 30.5 per cent stake in the aluminium-producing Alcoa of Australia have been a major factor in a 23.8 per cent drop in half-year net profits of Western Mining Corporation.

The major Australian mining house reports a net profit for the 26 weeks to January 1 this year of A\$13.79m (£9.94m), compared with A\$18.09m in the same period of the previous year. The total for the 52 weeks to last June was A\$30.1m.

Earnings for the latest half-year equal 4.4 cents per share and the interim dividend is being held at 2 cents. Last time there was a final also of 2 cents.

Reflecting the reduced contribution from Alcoa, the share of operating profits, after tax, from associated companies dropped from A\$13.51m to A\$7.12m.

Exploration write-offs increased from A\$7.7m to A\$19.5m in line with increased spending on petroleum exploration and

amortisation of the Mesa purchase.

The fall in the value of the Australian dollar against the U.S. dollar resulted in a major reduction of exchange losses on overseas borrowings rising from A\$4.86m to A\$5.25m. However, the borrowings were reduced and the net interest payable fell from A\$20.69m to A\$16.53m.

The strength of the U.S. dollar boosted revenue from nickel sales by 10.6 per cent and limited the fall in the Australian gold price realised during the period to 10 per cent.

At the same time, Western Mining lifted its gold sales from \$3,294 to 105,793 oz while those of the 50.5 per cent-owned Central Newstream were higher at \$5,426 or against \$1,244 oz.

The increase in gold mining operations was the major factor in the higher depreciation charge of A\$33.64m against A\$28.59m.

Central Newstream's net profit for the half-year has climbed from A\$2.31m to A\$7.2m, and the interim dividend is doubled to 18 cents out of earnings of 27.7 cents per share. The previous year's final was 12.5 cents.

comment

After falling 10p to 220p in London yesterday, Western Mining shares were still yielding only a little more than one per cent, which seems to imply a good deal of faith in the company's longer-term prospects.

Certainly, the rating seems scarcely justified by the immediate trading outlook. The benefits of higher gold production and improved nickel prices are still being outweighed by difficult conditions in the aluminium market while the company itself focuses on short-term recovery in aluminium sales.

It is still being prepared to make a forecast for the current half-year.

Ministry move puts block back on Benguet's exports

THE EXPORT of concentrates from Benguet Corporation, one of the largest producers of copper and gold in the Philippines, has been stopped again just a week after the supreme court ruled in the company's favour in its long-running dispute with the Ministry of Trade and Industry.

The Solicitor-General has filed a motion of reconsideration of the court's decision, which means that the ruling is set aside for the time being.

The Ministry has been denying export clearance for some of Benguet's shipments pending the completion of metallurgical tests on concentrates supplied by the

company to the semi-state-owned Philippine Associated Smelting and Refining (Pasar).

All the other leading producers of copper concentrates in the country have agreed to deliver a proportion of their output to Pasar. Only Benguet has refused, claiming that it has contractual commitments to Japanese and other foreign smelters, and that Pasar cannot treat its concentrates because of their high mercury content.

Under protest, Benguet sent a small sample of concentrates to Pasar and said the Ministry when that body refused to allow further exports until the tests had been completed.

Mixed results from Vogels and New Wits

Contrasting results came from two of the smaller South African investment companies in the consolidated Gold Fields group, Volgestraatbank, which despite its revenue from base metals, and New Wits which is basically a gold mining investment company.

Despite low metal prices, Vogel's investment income has been maintained in 1984, but the company has had to write down its investment in O'Leary Copper to R3.83m (£1.71m) from R5.8m following the restructuring of the north-western Cape mining operation's debt.

This has resulted in Vogel's making a loss for the year of R201,000 compared with a net profit of R4.6m in 1983. The company has drawn upon its general reserve, however, to maintain the dividend total at 10 cents with a final of 11 cents.

New Wits, on the other hand, has increased its net profit for the first half of the current year to June 30 by R1m to R6m. The interim dividend is raised by 4 cents to 22 cents out of earnings of 52 cents per share. Net assets equal 1,822 cents (88p) per share. The latter were 99p yesterday.

MINING NEWS IN BRIEF

Australia's Minel proposes to make a capital reconstruction. This will follow a rights issue of one new share for every 10 shares (about 14p) plus one option at one cent for every 10 shares and options held. The options will carry the right to subscribe for a share at 25 cents up to March 1990.

Diamond output in 1984 at the Western Australian Argyle venture, controlled by CRA, was 1,000,000 carats, but output reflected the decline in overall ore grade at the alluvial deposits being worked. Total diamond recovery for the year amounted to 5,889,546 carats against 6,200,227 carats in 1983.

This depletion of the higher grade material will also affect output for 1985. Next year, however, should see the start of the major operation at the big AK-1 pipe which will have an annual output capacity of 25m carats and a minimum mining life of 20 years.

The Tasmanian Government and the state's Hydro Electric Commission have put forward a A\$10m (£7.2m) plan to save off the closure of the Remond Goldfields Consolidated loss-making Mount Lyell copper mine.

There were 23 trading days during the month—four more than in December. Turnover in all securities soared 69.9 per cent, or £16.9bn, to £41.08bn, while the number of bargains struck rose 100,846 to 600,560. The average value per equity bargain was up by £3,200 to £17,900. The Financial Times turnover index for all securities attained a record of 1,258.9, compared with December's measure of 740.8 and the previous high of 1,160.7 set last March.

Equities, still enjoying the aftermath of the highly successful British Telecom flotation, at first proved resilient to dearer money trends and oil price worries. The FT Ordinary share index broke through 1,000, closing at an all-time high of 1,044.5 on January 22.

However, investment confidence was jolted by the apparent impasse at the Organisation of Petroleum Exporting Countries meeting in Geneva which put renewed pressure on sterling and consequently led the clearing banks to raise their base lending rates to 14 per cent, the third rise during the month.

This effectively demoralised stock markets and at one stage on January 28, the FT 30 share index showed a drop of more than 44 points—the largest fall in points terms on record.

Gilt-edged stocks, initially firm following December's better-than-expected money supply figures, took a tumble as the Chancellor reintroduced, albeit temporarily, the Minimum Lending Rate. Subsequently, worries about the Public Sector Borrowing Requirement, not helped by the publication of the White Paper on expenditure, and sterling's dismal performance against the U.S. dollar resulted in substantial selling.

Trading in gilts was suspended on January 28 for a short period following news of another base-rate hike on the resumption of dealings, quotations showed falls extending to £4 and the FT Government Securities index dipped to 78.02. Prices steadied later as sterling stabilised and the index finished the month only 1.62 points lower on balance at 80.09.

Business in short-dated stocks rose 57.4 per cent, or £5.12bn, to £14.03bn, while trade in longer-dated maturities and irredeemables expanded by a massive 138.7 per cent, or £5.51bn, to £14.64bn.

The Financial Times turnover index for Government Securities rose to an all-time high of 1,213.8 against December's 698.8. The previous record of 1,207.4 was set in August 1982.

There were 23 trading days during the month—four more than in December. Turnover in all securities soared 69.9 per cent, or £16.9bn, to £41.08bn, while the number of bargains struck rose 100,846 to 600,560. The average value per equity bargain was up by £3,200 to £17,900. The Financial Times turnover index for all securities attained a record of 1,258.9, compared with December's measure of 740.8 and the previous high of 1,160.7 set last March.

Equities, still enjoying the aftermath of the highly successful British Telecom flotation, at first proved resilient to dearer money trends and oil price worries. The FT Ordinary share index broke through 1,000, closing at an all-time high of 1,044.5 on January 22.

However, investment confidence was jolted by the apparent impasse at the Organisation of Petroleum Exporting Countries meeting in Geneva which put renewed pressure on sterling and consequently led the clearing banks to raise their base lending rates to 14 per cent, the third rise during the month.

This effectively demoralised stock markets and at one stage on January 28, the FT 30 share index showed a drop of more than 44 points—the largest fall in points terms on record.

Gilt-edged stocks, initially firm following December's better-than-expected money supply figures, took a tumble as the Chancellor reintroduced, albeit temporarily, the Minimum Lending Rate. Subsequently, worries about the Public Sector Borrowing Requirement, not helped by the publication of the White Paper on expenditure, and sterling's dismal performance against the U.S. dollar resulted in substantial selling.

Trading in gilts was suspended on January 28 for a short period following news of another base-rate hike on the resumption of dealings, quotations showed falls extending to £4 and the FT Government Securities index dipped to 78.02. Prices steadied later as sterling stabilised and the index finished the month only 1.62 points lower on balance at 80.09.

Business in short-dated stocks rose 57.4 per cent, or £5.12bn, to £14.03bn, while trade in longer-dated maturities and irredeemables expanded by a massive 138.7 per cent, or £5.51bn, to £14.64bn.

The Financial Times turnover index for Government Securities rose to an all-time high of 1,213.8 against December's 698.8. The previous record of 1,207.4 was set in August 1982.

There were 23 trading days during the month—four more than in December. Turnover in all securities soared 69.9 per cent, or £16.9bn, to £41.08bn, while the number of bargains struck rose 100,846 to 600,560. The average value per equity bargain was up by £3,200 to £17,900. The Financial Times turnover index for all securities attained a record of 1,258.9, compared with December's measure of 740.8 and the previous high of 1,160.7 set last March.

Equities, still enjoying the aftermath of the highly successful British Telecom flotation, at first proved resilient to dearer money trends and oil price worries. The FT Ordinary share index broke through 1,000, closing at an all-time high of 1,044.5 on January 22.

However, investment confidence was jolted by the apparent impasse at the Organisation of Petroleum Exporting Countries meeting in Geneva which put renewed pressure on sterling and consequently led the clearing banks to raise their base lending rates to 14 per cent, the third rise during the month.

This effectively demoralised stock markets and at one stage on January 28, the FT 30 share index showed a drop of more than 44 points—the largest fall in points terms on record.

Gilt-edged stocks, initially firm following December's better-than-expected money supply figures, took a tumble as the Chancellor reintroduced, albeit temporarily, the Minimum Lending Rate. Subsequently, worries about the Public Sector Borrowing Requirement, not helped by the publication of the White Paper on expenditure, and sterling's dismal performance against the U.S. dollar resulted in substantial selling.

Trading in gilts was suspended on January 28 for a short period following news of another base-rate hike on the resumption of dealings, quotations showed falls extending to £4 and the FT Government Securities index dipped to 78.02. Prices steadied later as sterling stabilised and the index finished the month only 1.62 points lower on balance at 80.09.

Business in short-dated stocks rose 57.4 per cent, or £5.12bn, to £14.03bn, while trade in longer-dated maturities and irredeemables expanded by a massive 138.7 per cent, or £5.51bn, to £14.64bn.

The Financial Times turnover index for Government Securities rose to an all-time high of 1,213.8 against December's 698.8. The previous record of 1,207.4 was set in August 1982.

There were 23 trading days during the month—four more than in December. Turnover in all securities soared 69.9 per cent, or £16.9bn, to £41.08bn, while the number of bargains struck rose 100,846 to 600,560. The average value per equity bargain was up by £3,200 to £17,900. The Financial Times turnover index for all securities attained a record of 1,258.9, compared with December's measure of 740.8 and the previous high of 1,160.7 set last March.

Equities, still enjoying the aftermath of the highly successful British Telecom

Prices at 3pm, February 4

Continued on Page 29

Continued on Page 30

Continued on Page 30

[illegible]

WORLD STOCK MARKETS

AUSTRIA				GERMANY				NORWAY				JAPAN (continued)				AUSTRALIA (continued)			
Feb. 1	Price	+ or -		Feb. 4	Price	+ or -		Feb. 4	Price	+ or -		Feb. 4	Price	+ or -		Feb. 4	Price	+ or -	
Creditanstalt	289			AEG-Telco	111.3	-2.7		Bergens Bank	170	-1		Mitsui	354	-4		Gen Prop Trust	2.18		
Gesellschaft	370	+10		Allianz Vers.	400	-2.2		Christiana Bank	167	-8.5		Mitsui Estate	551	-19		Harold W. Yates	1.5	-0.06	
Interbank	420			BASF	176.8	-2.7		Den Norske Cred	165.5	-2.6		NGK Insulator	580	-20		Long Lease	0.7	-0.1	
Landesbank	340	-1		Bayer	185	-0.5		Elkem	187.5	-7.5		Nippon Cement	1,590	-10		Mayne Emporium	3.15	-0.01	
Perinor	250			Bayer-Hypo	319	-0.5		Kvaerner	187.5	-7.5		Nippon Electric	1,150	-10		Nicholas Kiv.	5.18	-0.06	
Steyr-Gail	127			Bayer-Verein	277	-4.5		Norsk Data	429	-3.5		Nippon Express	1,150	-10		North Bk. Hill	2.15	-0.06	
Verkehrsbank	301	-1		BfV-Bank	277	-4.5		Norsk Hydro	107	-1		Nippon Gald	2,130	-80		News	1.2	-0.01	
BELGIUM/LUXEMBOURG				SPAIN				SWEDEN				HONG KONG				JAPAN			
Feb. 4	Price	+ or -		Feb. 4	Price	+ or -		Feb. 4	Price	+ or -		Feb. 4	Price	+ or -		Feb. 1	Price	+ or -	
S.B.L.	1,800			D'oeche Sabcock	163	-1.5		AGA	578	+10		Bank East Asia	24.4	-0.8		Alkermatic	1,110	-20	
Bank A. Lax	5,580	+10		Dresdner Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank B. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank C. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank D. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank E. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank F. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank G. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank H. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank I. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank J. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank K. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank L. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank M. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank N. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank O. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank P. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank Q. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank R. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank S. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank T. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank U. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank V. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank W. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank X. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank Y. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank Z. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AA. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AB. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AC. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AD. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AE. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AF. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AG. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AH. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AI. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AJ. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AK. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AL. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AM. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AN. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AO. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AP. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AQ. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AR. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AS. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AT. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AU. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AV. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AW. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AX. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AY. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank AZ. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank BA. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank BB. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank BC. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank BD. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank BE. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank BF. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank BG. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank BH. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank BI. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank BJ. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank BK. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank BL. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4	-0.8		Alkermatic	1,110	-20	
Bank BM. Lax	5,580	+10		Deutsche Bank	183.5	-6.5		Alfa Laval	578	+10		Bank of China	24.4						

[illegible]

COMMODITIES AND AGRICULTURE

Firmers trend in metal markets

By Our Commodities Editor

LONDON METAL EXCHANGE

WAREHOUSE STOCKS

(Changes during week ending Feb 1)	
Aluminium	+400 to 140,500
Copper	+3,725 to 114,400
Lead	+4,050 to 55,575
Nickel	+1,624 to 6,528
Tin	+680 to 22,880
Zinc	+675 to 29,600

Silver +230,000 to 53,034,000 (ounces)

EASIER STERLING, and a rally in copper, brought a generally firmer trend on the London base metal markets yesterday. After declining for three days in succession last week from the five-year peak reached last Tuesday, copper opened on a steady note yesterday and closed with the three months higher grade quotation \$9 up to \$11,274.25 a tonne.

The fall in copper warehouse stocks to the lowest level since December 1981 was in line with market expectations and made little impact on prices. Indeed there were reports to be fiercer offerings of cash metal, that maintained the gap between the cash and three months price.

The decline in aluminium stocks was also anticipated, but the market was boosted by the news late on Friday that U.S. producer Alcoa was closing a pitline normally producing over 34,000 tonnes a year.

This steady decline in zinc stocks to the lowest levels for nearly 10 years remains a dominant influence. The standard grade cash price advanced strongly again yesterday by \$11.50 to \$746.5 a tonne.

Inco (Europe) announced yesterday that it has ceased to publish its monthly sterling price for nickel, which was calculated by converting its world dollar price on an exchange rate formula. The company said that due to volatility in the dollar-sterling parity it was no longer possible to work out a single exchange rate relevant for a whole month in advance.

COFFEE FUTURES continued last week's late rally with the May position ending the day \$29 up to \$2,414 a tonne. Dealers said the rise reflected strong gains on the New York market and the U.S. dollar's decline against the dollar. They described the market's tone as "lacklustre".

Sugar values drifted in quiet trading and nearby futures positions moved a dollar or two off on the day. Dealers said the market lacked fresh news and incentives and reacted to a softer tone in New York.

There was no noticeable impact from a revised EEC crop estimate published by the French Sugar Market Intervention Board. This limited the 1984-85 crop prediction to 12.48m tonnes from the 12.2m predicted in December.

COPPER: a.m. + or - p.m. + or - High Grade: \$1,182.5 +10.5 to \$1,193 +9.5

Cash: 1,182.5 +10.5 to 1,193 +9.5
3 months: 1,182.5 +10.5 to 1,193 +9.5
Settlement: 1,182.5 +10.5 to 1,193 +9.5

Lead: a.m. + or - p.m. + or - High Grade: \$1,182.5 +10.5 to \$1,193 +9.5

Cash: 1,182.5 +10.5 to 1,193 +9.5
3 months: 1,182.5 +10.5 to 1,193 +9.5
Settlement: 1,182.5 +10.5 to 1,193 +9.5

Zinc: a.m. + or - p.m. + or - High Grade: \$1,182.5 +10.5 to \$1,193 +9.5

Cash: 1,182.5 +10.5 to 1,193 +9.5
3 months: 1,182.5 +10.5 to 1,193 +9.5
Settlement: 1,182.5 +10.5 to 1,193 +9.5

May launch for freight futures

By JOHN EDWARDS, COMMODITIES EDITOR

A DEAL between the Baltic Freight Futures Exchange (known as Biffex) and the Inter Futures Exchange (Inter) to start trading their freight futures contracts simultaneously in May was announced yesterday.

The announcement followed a stormy meeting of the newly-elected four members of Biffex. Inter announced nearly two weeks ago that it was planning to launch independently in March the first ever ocean freight futures contract.

It has now agreed to postpone the contract until May, while Biffex has brought forward its proposed start up date by a month.

Gatt rules against EEC in citrus fruit dispute

GENEVA — Gatt, the General Agreement on Tariffs and Trade, has ruled in favour of the U.S. in a dispute over tariff preferences given by the European Community to several Mediterranean citrus fruit suppliers to the Community.

A study by a five-member Gatt panel said the tariff preferences on fresh oranges and lemons had substantially impaired U.S. citrus trade with the Community and upset competition between the U.S. and Mediterranean suppliers.

The panel told the Community to take action to limit the adverse effects on U.S. exports by next October, possibly by reducing its "most

favoured nations" tariff rates. It also ruled that the U.S. was entitled to compensation.

The EEC is to contest the ruling, which would affect fruit from Spain, Morocco and Israel. Community officials said that the panel had not found the EEC practices to be contrary to Gatt rules, and said they would ask the next Gatt council meeting on March 12 to set the report aside.

Europe imports 1.6m tonnes of fresh sweet oranges and about 250,000 tonnes of lemons every year, more than 75 per cent from Mediterranean countries and the rest from the U.S. Reuter

Under the deal Biffex will lease the Baltic Freight Index to Inter for an annual fee (believed to be \$25,000) and both exchanges will have identical contracts.

Although the International Commodities Clearing House will provide clearing facilities for both exchanges, there will be no mutual offset trading, although a common clearing may be considered in the future.

Mr Richard Hunt, vice-chairman of the Baltic Exchange, said it would be interesting to see how the two markets fared with Biffex using the traditional open outcry trading system and Inter using fully-automated computer trading.

Biffex had no difficulty in finding 30 floor members, paying \$25,000 each for full trading rights. They are made up of a mixture of futures brokers and shipping companies.

However, there has been a disappointing response for an "ordinary" membership, which costs \$5,000 but offers few privileges. Only 20 companies have applied so far against a target of 70.

Cocoa price climbs to 7 1/2-year high

COCOA prices climbed to 7 1/2-year high on the London futures market yesterday as the recent bull trend, briefly interrupted towards the end of last week, resumed.

The May position, which advanced \$100 a tonne last week, gained another \$32 to \$2,266.50 a tonne. Dealers attributed the rise to speculative buying in a thin market. There was no sign of producer selling being attracted by the higher prices, they noted.

The Cocoa Producers' Alliance will meet in London on February 13-15 to prepare for the resumption in Geneva on February 18 of negotiations for an International Cocoa Agreement. This will be the third attempt to renegotiate the pact. The present agreement expires at the end of September.

Mr Michael Jopling, the British Agriculture Minister, belittled the suggestion when he addressed Hampshire farmers last week. He claimed that a 5 per cent cut in the price of cocoa should be enough to calm down over-production and, in any case, last year's record harvest was unlikely to be repeated.

Mr Michael Jopling, the British Agriculture Minister, belittled the suggestion when he addressed Hampshire farmers last week. He claimed that a 5 per cent cut in the price of cocoa should be enough to calm down over-production and, in any case, last year's record harvest was unlikely to be repeated.

THE INDIAN Government has lifted its ban on cotton exports following a good crop this season and pressure from cotton co-operatives to allow exports in a bid to arrest the price fall.

Exports will be handled by the Cotton Corporation of India, the Maharashtra State Co-operative Growers Marketing Federation and the Gujarat Co-operative Marketing Federation.

Cotton production this season is estimated at 9.1m bales, about 1.3m bales higher than the previous crop. There has been a 10-15 per

Getting to grips with cereals surpluses

HAVING stemmed but by no means staunch the horrendous costs of its milk regime, the European Community is now trying to lessen the expense of the cereals sector. Under the rules there should be a 5 per cent reduction in the basic price for the next year, beginning August 1, but in its proposals announced last week the Commission called for a reduction of only 3.6 per cent.

Even this figure has been contested by Herr Kiechle, the West German Agriculture Minister, who proposed recently that the quality standards for grain offered for intervention and export should be raised substantially.

Minimum weights per hectolitre should be raised, and the quantity of admixtures, split grains and weed seeds and so on should be reduced below the 12 per cent now acceptable, to perhaps 3 or 4 per cent. This would particularly apply to wheat. The French would probably favour this as their grain is generally of a higher quality than British, as is most probably German.

Mr Michael Jopling, the British Agriculture Minister, belittled the suggestion when he addressed Hampshire farmers last week. He claimed that a 5 per cent cut in the price of cocoa should be enough to calm down over-production and, in any case, last year's record harvest was unlikely to be repeated.

Mr Michael Jopling, the British Agriculture Minister, belittled the suggestion when he addressed Hampshire farmers last week. He claimed that a 5 per cent cut in the price of cocoa should be enough to calm down over-production and, in any case, last year's record harvest was unlikely to be repeated.

Mr Michael Jopling, the British Agriculture Minister, belittled the suggestion when he addressed Hampshire farmers last week. He claimed that a 5 per cent cut in the price of cocoa should be enough to calm down over-production and, in any case, last year's record harvest was unlikely to be repeated.

Mr Michael Jopling, the British Agriculture Minister, belittled the suggestion when he addressed Hampshire farmers last week. He claimed that a 5 per cent cut in the price of cocoa should be enough to calm down over-production and, in any case, last year's record harvest was unlikely to be repeated.

Mr Michael Jopling, the British Agriculture Minister, belittled the suggestion when he addressed Hampshire farmers last week. He claimed that a 5 per cent cut in the price of cocoa should be enough to calm down over-production and, in any case, last year's record harvest was unlikely to be repeated.

Mr Michael Jopling, the British Agriculture Minister, belittled the suggestion when he addressed Hampshire farmers last week. He claimed that a 5 per cent cut in the price of cocoa should be enough to calm down over-production and, in any case, last year's record harvest was unlikely to be repeated.

He said he was determined not to impose acreage or production quotas and did not favour any sort of enforced standards for grain. The market was the best judge of these criteria.

This latter *laissez faire* approach was sensible when Britain was one of the leading grain importers and could take its pick of the offers, but now that it is the second largest cereals grower in the Community after France, a rather different approach would seem to be needed.

According to the Home

Grown Cereals Authority UK cereal intervention stocks will total 3.5m tonnes of wheat and 1m tonnes of barley by the end of the cereals year.

This cannot be welcome news to the Chancellor of the Exchequer. Total intervention costs, buying and storage are paid by the member state and only repaid when the grain is sold.

In view of the large tonnage in intervention throughout the Community, sales are unlikely without heavy subsidy. Which will take its toll on the budget and lead to more arguments between the UK and the rest of Europe.

The other outlet for UK grain is export which from August

to December 31 has amounted to just under 1m tonnes of wheat and 2m tonnes of barley. This is just about double the previous year's tonnage and on the face of it a commendable effort, but it is now said to be petering out. There are simply no viable markets left and the world cereals market is under pressure through high stocks and weak sellers.

It is probable that the Cereals Management Committee of the EEC made a strategic mistake. Because of the strength of the U.S. dollar, in which cereals are traded, the EEC

refused to award any export subsidies for wheat for long periods of this export season. This suited France in particular where wheat is of highest quality. UK exports were also of the milling types for the most part, and so competitive with world supplies.

But most varieties of wheat grown in Britain are feed sorts and would not compete with milling wheat on the world market. Because there are no real quality standards for wheat of different grades, feed wheat has to take its place in the milling wheat market. Not surprisingly no one was interested.

Barley, however, has been selling well, both from the UK and other countries. The reason

is simple. Barley, mainly used as feed grain, has been enjoying an export subsidy of £20 to £25 per tonne for most of the season.

The refund is set to match other feed grains, mainly barley on world markets. In a logical world, which the EEC most certainly is not, wheat should in this instance be classed with barley and subsidised accordingly.

In theory it is. Both have the same intervention price. There is a higher intervention price for milling wheat. The premium is just under £5 per tonne.

Bearing in mind the difficulties of imposing quotas or real price reductions, Kiechle's suggestion of raising quality standards is worthy of examination and the support of those who wish to save the EEC money.

Any grain failing to meet these standards would have to be sold for what it would fetch on the local market. That would reduce the amounts offered for intervention and export, and would strongly compete with the cereal substitutes at present being imported.

But it would only be a temporary solution. Within a few years there is no doubt that the breeders' and farmers' would have turned their efforts towards the higher quality wheats and be flooding the market once more. Physical restraint is the only answer.

Farmer's Viewpoint: By John Cherrington

Grown Cereals Authority UK cereal intervention stocks will total 3.5m tonnes of wheat and 1m tonnes of barley by the end of the cereals year.

This cannot be welcome news to the Chancellor of the Exchequer. Total intervention costs, buying and storage are paid by the member state and only repaid when the grain is sold.

In view of the large tonnage in intervention throughout the Community, sales are unlikely without heavy subsidy. Which will take its toll on the budget and lead to more arguments between the UK and the rest of Europe.

The other outlet for UK grain is export which from August

to December 31 has amounted to just under 1m tonnes of wheat and 2m tonnes of barley. This is just about double the previous year's tonnage and on the face of it a commendable effort, but it is now said to be petering out. There are simply no viable markets left and the world cereals market is under pressure through high stocks and weak sellers.

It is probable that the Cereals Management Committee of the EEC made a strategic mistake. Because of the strength of the U.S. dollar, in which cereals are traded, the EEC

refused to award any export subsidies for wheat for long periods of this export season. This suited France in particular where wheat is of highest quality. UK exports were also of the milling types for the most part, and so competitive with world supplies.

But most varieties of wheat grown in Britain are feed sorts and would not compete with milling wheat on the world market. Because there are no real quality standards for wheat of different grades, feed wheat has to take its place in the milling wheat market. Not surprisingly no one was interested.

Barley, however, has been selling well, both from the UK and other countries. The reason

is simple. Barley, mainly used as feed grain, has been enjoying an export subsidy of £20 to £25 per tonne for most of the season.

The refund is set to match other feed grains, mainly barley on world markets. In a logical world, which the EEC most certainly is not, wheat should in this instance be classed with barley and subsidised accordingly.

In theory it is. Both have the same intervention price. There is a higher intervention price for milling wheat. The premium is just under £5 per tonne.

Bearing in mind the difficulties of imposing quotas or real price reductions, Kiechle's suggestion of raising quality standards is worthy of examination and the support of those who wish to save the EEC money.

Any grain failing to meet these standards would have to be sold for what it would fetch on the local market. That would reduce the amounts offered for intervention and export, and would strongly compete with the cereal substitutes at present being imported.

Farmer's Viewpoint: By John Cherrington

Grown Cereals Authority UK cereal intervention stocks will total 3.5m tonnes of wheat and 1m tonnes of barley by the end of the cereals year.

This cannot be welcome news to the Chancellor of the Exchequer. Total intervention costs, buying and storage are paid by the member state and only repaid when the grain is sold.

In view of the large tonnage in intervention throughout the Community, sales are unlikely without heavy subsidy. Which will take its toll on the budget and lead to more arguments between the UK and the rest of Europe.

The other outlet for UK grain is export which from August

to December 31 has amounted to just under 1m tonnes of wheat and 2m tonnes of barley. This is just about double the previous year's tonnage and on the face of it a commendable effort, but it is now said to be petering out. There are simply no viable markets left and the world cereals market is under pressure through high stocks and weak sellers.

It is probable that the Cereals Management Committee of the EEC made a strategic mistake. Because of the strength of the U.S. dollar, in which cereals are traded, the EEC

refused to award any export subsidies for wheat for long periods of this export season. This suited France in particular where wheat is of highest quality. UK exports were also of the milling types for the most part, and so competitive with world supplies.

But most varieties of wheat grown in Britain are feed sorts and would not compete with milling wheat on the world market. Because there are no real quality standards for wheat of different grades, feed wheat has to take its place in the milling wheat market. Not surprisingly no one was interested.

Barley, however, has been selling well, both from the UK and other countries. The reason

is simple. Barley, mainly used as feed grain, has been enjoying an export subsidy of £20 to £25 per tonne for most of the season.

The refund is set to match other feed grains, mainly barley on world markets. In a logical world, which the EEC most certainly is not, wheat should in this instance be classed with barley and subsidised accordingly.

In theory it is. Both have the same intervention price. There is a higher intervention price for milling wheat. The premium is just under £5 per tonne.

Bearing in mind the difficulties of imposing quotas or real price reductions, Kiechle's suggestion of raising quality standards is worthy of examination and the support of those who wish to save the EEC money.

Any grain failing to meet these standards would have to be sold for what it would fetch on the local market. That would reduce the amounts offered for intervention and export, and would strongly compete with the cereal substitutes at present being imported.

MAIN PRICE CHANGES

In tonnes unless otherwise stated

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

INDICES

FINANCIAL TIMES

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

OIL

BRENT CRUDE

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

GAS OIL FUTURES

BRENT CRUDE

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

Feb. 4 - or - Month ago	
Aluminium	£1100
Copper	£1145.5
Lead	£55.575
Nickel	£6,528
Tin	£22,880
Zinc	£29,600

CURRENCIES, MONEY and CAPITAL MARKETS

FOREIGN EXCHANGES

Dollar breaks through DM3.21

A strong dollar, backed by solid commercial demand, rose to record levels on the foreign exchanges yesterday. Dealers suggested the lack of long-speculative positions in the market is making it increasingly difficult for the dollar to rise further. The dollar's rise was also helped by the German Bundesbank on the open market, and by the Bank of Tokyo earlier in the day, the U.S. currency advanced.

Against a background of a record \$19m U.S. Treasury programme of auctions this week, and considerable scepticism about the ability of the Reagan administration to control the budget deficit, U.S. interest rates are expected to reverse the recent downward trend. This is reinforced by the larger than anticipated growth in weekly M1 money supply last week and recent signs of recovery in U.S. economic growth.

The dollar's surge began in New York on Friday and continued in the Far East yesterday. The Bank of Japan may have sold up to \$250m, but despite later efforts by the Bundesbank and perhaps other European central banks, the dollar rose to a 12-year peak of DM 3.2115 from DM 3.1785; a record FFR 9.5125 from FFR 9.71; a 9-year high of SwFr

2.7380 from SwFr 2.7035; and slightly over a 2-year peak of Y289.35 from Y286.70.

On Bank of England figures the dollar's index rose to a record 148 from 146.7.

STERLING — Trading range against the dollar in 1984-85 is 1.1374. January average 1.1374. Exchange rate index fell 0.4 to 71.3, the lowest level of the day. It opened at 71.4 and touched a peak of 71.5 at 9.00 am. Six months ago the index was 76.5.

Sterling lost 1.05 cents to \$1.135-1.145, but held up well against other major currencies, as fears faded about disarray in the oil market following last week's majority Opec agreement, and there was much less conviction about an early cut in UK clearing bank base rates. Apart from the sudden resurgence of

the dollar, the market is also waiting with apprehension for today's UK money supply figures. The pound rose to DM 3.5625 from DM 3.57; FFR 10.9360 from FFR 10.91; SwFr 3.0525 from SwFr 3.04; and Y289 from Y288.75.

D-MARK — Trading range against the dollar in 1984-85 is 3.2115 to 3.5835. January average 3.1698. Trade-weighted index 120.1 against 124.6 six months ago.

The D-mark fell sharply against the dollar, as the U.S. currency closed at its highest level for 13 years in Frankfurt yesterday. It finished at DM 3.2080, around the day's peak, despite intervention by the Bundesbank at the time, and on the open market. The German central bank confirmed it sold dollars on the open market, but

declined to give details. Dealers estimated official sales were in the region of \$50m to \$100m and the Bundesbank was also known to have sold \$315m when the dollar was fixed at its highest level since January 23, 1973 at DM 3.1968 compared with DM 3.1725 on Friday. Selling pressure against the D-mark, as demand continued to grow for the dollar, was also reflected in a weakening of the German currency against some other major units, including the French franc. The D-mark fell to its lowest level in Paris for 13 months at FFR 3.0517 compared with FFR 3.0559 on Friday.

STERLING EXCHANGE RATE INDEX

(Bank of England)			
	Feb 4	Previous	
8.30 am	71.4	71.5	
9.30 am	71.5	71.5	
10.00 am	71.5	71.5	
11.00 am	71.4	71.5	
Noon	71.4	71.6	
1.00 pm	71.4	71.6	
2.00 pm	71.4	71.6	
3.00 pm	71.3	71.7	
4.00 pm	71.3	71.7	

\$ in New York

	February 4	Prev. close
Spot	\$1.135-1.145	\$1.135-1.145
1 month	0.99-0.97	0.97-0.95
3 months	0.97-0.95	0.97-0.95
6 months	0.95-0.93	0.95-0.93
12 months	0.93-0.91	0.93-0.91

Forward premiums and discounts apply to the U.S. dollar.

Weaker trend

Sterling-based instruments were weaker in the London International Financial Futures Exchange yesterday as interest rates rose ahead of today's UK money supply figures and a renewed upward surge in the dollar. Gilt prices opened weaker, reflecting a softer tone in sterling but were held at lower levels. A small rally in the U.S. bond market helped values finish above the day's low.

Short sterling prices finished near to the day's lows as hopes of an early reduction in UK interest rates receded slightly. While rates appear set for a

fall, the dollar's rise to record levels once again revived fears of renewed downward pressure on sterling. The March contract opened at 87.55, down from 87.87 on Friday and finished at 87.39.

Euro-dollar prices recovered from the day's lows on profit taking and a slightly lower Federal funds rate. However, market fears that the U.S. authorities were unlikely to relax their fiscal stance to any great extent inhibited the extent of any recovery. The March contract opened at 90.78 and touched a low of 90.72 before recovering to finish at 90.84 still a little down from Friday's close of 90.88.

LONDON

THREE-MONTH EURO-DOLLAR \$1m			
	High	Low	Prev
March	90.85	90.72	90.85
June	90.32	90.23	90.25
Sept	89.75	89.65	89.75
Dec	89.21	89.11	89.21
March	88.92	88.82	88.92

Previous day's open int 13.549 (13.27)

Previous day's open int 5.865 (5.861)

20-YEAR 12% NOTIONAL GILT

100.00 100.00 100.00 100.00

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

U.S. TREASURY BONDS

20-YEAR 12% NOTIONAL GILT			
	High	Low	Prev
March	100.25	100.25	100.25
June	100.25	100.25	100.25
Sept	100.25	100.25	100.25
Dec	100.25	100.25	100.25
March	100.25	100.25	100.25

Previous day's open int 13.549 (13.27)

Previous day's open int 5.865 (5.861)

20-YEAR 12% NOTIONAL GILT

100.00 100.00 100.00 100.00

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.25 100.25 100.25

June 100.25 100.25 100.25 100.25

Sept 100.25 100.25 100.25 100.25

Dec 100.25 100.25 100.25 100.25

March 100.25 100.2

